

Process Evaluation of Cascade Natural Gas PY2022-PY2023 Residential, and Commercial Energy Efficiency Programs

SUBMITTED TO: CASCADE NATURAL GAS

SUBMITTED ON: JUNE 6, 2024

SUBMITTED BY: ADM ASSOCIATES, INC.

ADM

ADM Associates, Inc
3239 Ramos Circle
Sacramento, CA 95827

Cascade Natural Gas
1520 S 2nd St, Mount
Vernon, WA 98273

1 TABLE OF CONTENTS

2	Executive Summary	5
2.1	Researchable Issues.....	5
2.2	Data Collection and Analysis Methods	6
2.3	Conclusions and Recommendations.....	6
2.3.1	<i>Residential</i>	6
2.3.2	<i>Commercial</i>	11
3	Introduction	15
3.1	Summary of Evaluation Approach.....	15
3.2	Organization of the Report.....	16
4	Process Evaluation Methods and Data Collection	17
4.1	Database Review	17
4.2	Survey Sampling Methodology.....	17
4.2.1	<i>Sampling Plan</i>	18
4.3	Web Surveys	18
4.4	In-Depth Interviews.....	18
4.4.1	<i>Program Staff Interviews</i>	18
4.4.2	<i>Stakeholder Interviews</i>	18
5	Residential Programs Process Evaluation	20
5.1	Introduction & Methodology	20
5.2	Residential Programs Staff Interview	20
5.2.1	<i>Existing Homes</i>	20
5.2.2	<i>New Homes</i>	21
5.2.3	<i>Low Income</i>	21
5.3	Existing Homes – Participant Survey	22
5.3.1	<i>Participant Survey</i>	22
5.4	New Homes	35
5.4.1	<i>Builder Interviews</i>	35
5.5	Low Income	36
5.5.1	<i>CAP Agency Representative Interviews</i>	36

5.5.2	<i>Low Income – Participant Survey</i>	39
5.6	Residential Program Non-Participants	45
5.6.1	<i>Non-Participant Survey</i>	45
5.7	Residential Program Conclusions and Recommendations	52
5.7.1	<i>Communication and Awareness</i>	52
5.7.2	<i>Point of Entry</i>	53
5.7.3	<i>Participation Experience</i>	55
5.7.4	<i>Impact/Effectiveness</i>	55
5.7.5	<i>Measure Specific Findings</i>	56
5.7.6	<i>Additional Offerings</i>	57
6	Commercial Programs Process Evaluation Results	58
6.1	Introduction & Methodology	58
6.2	Commercial Programs Staff Interview.....	58
6.3	Commercial Programs Participant Survey	59
6.3.1	<i>Pre-Program Energy Management Practices and Policies</i>	59
6.3.2	<i>Program Awareness & Motivation to Participate</i>	60
6.3.3	<i>Program Participation</i>	61
6.3.4	<i>Measure Specific Decisions</i>	63
6.3.5	<i>Experience with Contractor and Inspection</i>	67
6.3.6	<i>Satisfaction</i>	69
6.3.7	<i>Firmographics</i>	71
6.4	Commercial Programs Trade Ally Interviews	72
6.4.1	<i>Background and Program Tenure</i>	72
6.4.2	<i>Program Participation</i>	72
6.4.3	<i>Program Satisfaction</i>	73
6.5	Other Gas Utility Staff Interviews.....	73
6.5.1	<i>Utility A – Mixed Implementation</i>	74
6.5.2	<i>Utility B – In House Implementation</i>	74
6.5.3	<i>Takeaways</i>	75
6.6	Commercial Programs Conclusions and Recommendations	77
6.6.1	<i>Communication/Awareness</i>	77

6.6.2	<i>Point of Entry</i>	78
6.6.3	<i>Participation Experience</i>	78
6.6.4	<i>Impact/Effectiveness</i>	79
6.6.5	<i>Self vs. Third Party Program Implementation</i>	79
6.6.6	<i>Additional Offerings</i>	80
7	Appendix.....	81
7.1	Appendix A: Surveys.....	81
7.1.1	<i>Residential Survey</i>	81
7.1.2	<i>Residential Low Income Survey</i>	160
7.1.3	<i>Residential Non-Participant Survey</i>	194
7.1.4	<i>Commercial Participant Survey</i>	217
7.2	Appendix B: Interview Guides.....	330
7.2.1	<i>Builder Interview Guide</i>	330
7.2.2	<i>CAP Agency Representative Interview Guide</i>	332
7.2.3	<i>Commercial Trade Ally Interview Guide</i>	335

2 EXECUTIVE SUMMARY

This report details the process evaluation of the of the Residential and Commercial Natural Gas Evaluation portfolio of programs offered by Cascade Natural Gas (Cascade) during the 2022 and 2023 program years (PY2022 and PY2023). The evaluation was completed by ADM Associates, Inc. (herein referred to as the “Evaluator”).

2.1 RESEARCHABLE ISSUES

The data collection and analysis activities discussed in this report address the researchable issues established for this evaluation, which include the following:

- **Understanding:** Establish a general understanding of the utility’s current and past experience with the residential and commercial natural gas programs.
- **Communication/Awareness:** Characterize how customers first learned about the program and the best channels to use to reach these customers.
- **Point of Entry:** Identify ease of the application process, barriers to participation, and put together suggestions to encourage participation in all programs.
- **Participation Experience:** Identify customers’ and market actors’ level of satisfaction with services received, participation drivers, timeliness of program processes and services, suggestions for improvement, customer preference for online tracking and other potential program features.
- **Impact/Effectiveness:** Identify satisfaction with program outcome, savings, other benefits customers perceive from participation.
- **Additional Offerings:** Establish suggestions for program or service improvement to encourage customers to meet ongoing energy management needs.

In the course of developing the final evaluation research plan, the following additional researchable issues applicable to all the Cascade programs were identified. Table 2-1 provides a short response to each of these questions based on the process evaluation; more information regarding each question can be found in the details of the report.

Table 2-1: Research Questions

Research Questions	Abbreviated Answer
Is staffing/organization sufficient and appropriate relative to the design and budget?	Yes
Are marketing plans implemented per design and effective?	Cascade Natural Gas should consider additional marketing techniques and strategies to reach hard-to-reach populations and non-participants.
Are quality assurance procedures appropriate and effective?	Yes
Are management and implementation tools appropriate and effective?	Yes
What problems, if any, has the market experienced in purchasing or attaining efficient equipment?	Equipment costs and energy codes remain barriers for customers, contractors, and builders. Additionally, some non-participants request more

What barriers, market or otherwise, limit participation in the program?	information about the programs and benefits of energy efficient equipment.
---	--

Additional researchable issues for specific programs are included as part of the discussion of the individual program results.

2.2 DATA COLLECTION AND ANALYSIS METHODS

Primary data for the evaluation were collected through web surveys and in-depth interviews, as described below.

- **Web surveys:** For programs with data that included valid email addresses and customer names, the Evaluator fielded a web-based survey to collect information on multiple topics related to the process evaluation research issues discussed above. A total of 3,315 participant web surveys were completed and 406 non-participant web surveys. Further detail of the precision is summarized in Section 4.2.1.
- **In-depth interviews:** The Evaluator completed in-depth interviews of key market actors involved with the programs, including program staff, trade allies, builders, and CAP Agency representatives. The in-depth interviews were less structured than the web surveys that allowed the interviewer to ask follow-up questions and collect additional detail on important evaluation topics. A total of 21 in-depth interviews were completed.

2.3 CONCLUSIONS AND RECOMMENDATIONS

The following section details the Evaluator’ conclusions and recommendations for the residential and commercial programs.

2.3.1 Residential

Conclusions and recommendations for the residential programs are summarized below.

2.3.1.1 *Communication and Awareness*

Based on the evaluation findings, it is evident that different channels and sources play a role in program awareness across various customer groups. This finding highlights the importance of a diversified marketing approach that includes contractors, direct marketing, community engagement, and leveraging multiple communication channels to maximize program awareness and participation across different customer segments.

For Existing Homes participants, contractors are the primary drivers of program awareness, with nearly half (49.2%) of respondents citing their contractors as their initial source of information. This underscores the value of the network of trade allies that Cascade has developed to assist customers with program-related services.

In addition to contractors, Cascade's marketing efforts also contribute significantly to awareness of the Existing Homes Program. Participants reported learning about the program through the program website (22.1%), bill inserts (15.5%), Cascade mailers (7.2%), and emails (3.6%). Moreover, a share of customers who viewed Cascade’s marketing materials said it influenced their decision to participate –

30.9% said the materials were moderately influential, 27.8% said they were significantly influential, and 3.9% said they completely influential.

For low-income participants, word of mouth and community networks are the most common sources of program awareness. Nearly a third (28.6%) of respondents learned about the program through word of mouth, with Community Action Agencies (CAA) and assistance programs also playing a key role. This likely relates to how the program is delivered with the CAAs filling a central role in the delivery of the weatherization services.

Among non-participants, for those who were aware of the rebates offered, utility bill messages were the most effective communication channel (62.9%), followed by mailed messages (32.8%), emails (16.4%), and the Cascade website (12.1%). This finding suggests that while utility bill messages are effective in reaching some non-participants, there is still a need to enhance outreach efforts to improve overall program awareness.

Program staff noted that reaching rural customers has been an ongoing challenge, but they continue to assess potential strategies to reach these customers such as offering additional incentives to trade allies to provide services to these areas.

- **Recommendation 1:** Program staff's consideration of additional incentives to encourage trade allies is a potentially important solution given the role of trade allies in getting customers to participate in the program. The Evaluator recommends piloting of a bonus incentive to provide services to rural communities to assess if this approach increases participation. Additionally, rural communities also tend to be lower income communities so expanding the Low-Income Program budget to provide services may help increase rural participation.

2.3.1.2 *Point of Entry*

Findings from the non-participant surveys suggest that the key barrier to participation is lack of awareness. Almost three-quarters were (71.3%) unaware of Cascade's rebates for energy efficient equipment and home improvements. Additionally, customers who had installed gas equipment in the past three years identified other considerations for not engaging with energy efficiency and the rebate program including the cost of equipment (17.7%) and a lack of perceived savings from energy efficiency (9.6%).

More broadly, the key-factors non-participants identified for not participating were that they needed more information about the programs (53.1%), that they did not need to replace equipment (46.4%), and perceived participation to be too much of a hassle (12.7%).

- **Recommendation 2:** While the program has developed a large trade ally network, increasing direct to customer marketing may help increase awareness given that Cascade marketing was a common source of awareness among participants and non-participants.
- **Recommendation 3:** Consider emphasizing the point-of-sale rebates in marketing materials and on the program website to mitigate perceptions that participating is a hassle. For example, promoting it as a hassle-free way of getting the rebate on the website and providing a list of trade allies that participate in this delivery channel could be helpful.

A comparison of non-participant and Existing Homes participant survey responses suggest that while home characteristics across the two groups are similar, Existing Homes participants tended to be

somewhat more educated and affluent. This finding suggests that socio-economic status may be a barrier to participation.

Community Action Partnership staff identified home condition as the greatest barrier to participating in the Low-Income Program. Interviewees explained that the biggest barriers to customer engagement include homes needing repairs outside the scope of the program and the existence of asbestos in the home. For many Low-Income Programs, the condition of the home is a common issue that prevents weatherization improvements. An approach that some utilities have used to help address this barrier is to partner with local non-profit organizations to help rehabilitate homes to a condition that would allow their participation.¹

- **Recommendation 4:** Explore potential partnerships to assist with home rehabilitation to increase Low-Income Program eligibility.

Overall, a majority of participants across various segments expressed satisfaction with the application process, indicating that the program has successfully designed a user-friendly process for most users. In the Existing Homes Survey, 78.6% of participants reported being very or somewhat satisfied with the application process. Similarly, in the Low Income Survey, 53.3% of respondents shared a positive sentiment, while all the builders interviewed agreed that the New Homes process was easy to navigate.

Despite these positive sentiments, a subset of participants across these groups encountered issues that point to potential areas for enhancement. A notable challenge identified by Existing Homes participants was understanding what equipment qualified. Although 73.3% of Existing Homes participants who completed the rebate application themselves found it very clear, 26.7% did not share this experience. Specifically, confusion about what type of equipment qualified and what the rebate process was, were the most common issues identified by those who found the application process to be unclear.

While 71.4% of the Low-Income Program participants who completed the application themselves found it very clear, the overall satisfaction rate was lower compared to the Existing Homes Participants.

The feedback from New Home Builders was uniformly positive, with all respondents finding the application process easy. This uniformity may reflect the familiarity that the interviewed builders had developed over their years of partnering with Cascade.

- **Recommendation 5:** Although the Existing Homes program website lays out each of the participation steps, additional strategies may help clarify how the program works. For example, a graphic showing each step of the process might help clarify the process.

2.3.1.3 Participation Experience

Participants held favorable views of their contractors and project implementation, with most believing that the contractors completed the work in a reasonable time and conducted themselves professionally. This positive feedback is consistent across different participant groups, reflecting a general satisfaction with the contractor services provided by the program.

¹ For example, the Public Service Company of Oklahoma partners with an organization called Revitalize T-Town (RTT). <https://oklahoma.gov/content/dam/ok/en/occ/documents/energyefficiency/demand-program-annual-reports/2021-pso-demand-report.pdf>

Most Existing Home participants reported that their contractors scheduled and completed work promptly (88.0%) and maintained professionalism and courtesy throughout the process (86.5%). However, a small percentage (6.1%) of respondents expressed dissatisfaction with their contractor. The primary issues among these dissatisfied participants included prolonged project completion times, unprofessional behavior, poor work quality, and poor communication. These concerns highlight specific areas where contractor performance can be improved to enhance participant satisfaction further.

Similarly, the Low Income participant findings indicate a predominantly positive view of contractors. Most respondents felt that their contractors managed the scheduling and completion of work efficiently (90.0% - 100.0%) and conducted themselves with courtesy and professionalism (80.0%). However, two respondents did express dissatisfaction, citing issues such as the contractor leaving a mess and not completing the work initially.

Builders had mixed reactions to the idea of point-of-sale (POS) new construction rebates. Two respondents expressed hesitancy regarding the POS rebates, citing administrative challenges (n=1) and distrust with suppliers (n=1). The remaining respondent was interested in POS rebates and their potential for instant-rebate-payment opportunities. Due to the low response rate, the Evaluator cautions drawing overarching conclusions from these responses.

- **Recommendation 6.** Additional builder outreach and education is recommended to increase understanding and acceptability of the POS rebate offer. Time spent on understanding builder perspectives will likely lead to higher levels of POS rebate utilization.

Two of the CAP agency representatives were unsure if their agencies conducted inspections after project completion.

- **Recommendation 7.** Additional CAP Agency training and education is recommended to ensure the requisite low-income projects receive the mandatory post-project inspection.

2.3.1.4 Impact/Effectiveness

The evaluation of the energy efficiency program across different participant groups found a generally positive reception, with high levels of satisfaction and willingness to recommend the program. These findings underscore Cascade's success in meeting participant expectations and enhancing overall satisfaction with the utility company, Cascade.

Participants in the Existing Homes segment showed a high level of overall satisfaction with the program, with 88.0% saying they were very or somewhat satisfied. Additionally, 86.1% were satisfied with the rebate amount, indicating that the financial incentives provided are perceived as valuable and adequate. However, satisfaction with the time taken to receive rebates was somewhat lower at 69.5%, suggesting an area for potential improvement. Despite this, the program positively influenced participants' views of Cascade, with 66.3% reporting increased satisfaction with the utility company due to their participation. Furthermore, a significant 77.1% of respondents indicated they were likely to recommend the rebate program to others.

Satisfaction levels among low-income participants were slightly lower, with 66.7% reporting overall satisfaction with the program. Nevertheless, the program had a notable positive impact on participants' satisfaction with Cascade, with 78.6% indicating increased satisfaction and none reporting a decrease.

All respondents who participated in the Low-Income Program indicated a willingness to recommend the program to others.

Feedback from new home builders was uniformly positive, reflecting high satisfaction with various aspects of the program. Builders found the application process easy and straightforward, appreciated the range of measures offered, and were satisfied with the timeliness of rebate payments.

2.3.1.5 Measure Specific Findings

Key considerations when selecting program qualifying rebates varied by the equipment type, however rebates were in the top three considerations for all equipment, aside from the programmable thermostats.

For **furnaces**, the most influential consideration was contractor recommendations, cited by 65% of participants. This was followed by the availability of rebates, which influenced 47% of the participants, and desired features, which were important for 46%.

When it came to selecting a **fireplace**, the dominant factor was the desired features, mentioned by a substantial 85% of participants. The availability of rebates was the next significant factor, affecting 58% of participants, while the right size or color was a consideration for 46%.

For **smart thermostats**, the top three considerations were the desired features, which 57% of participants found important, followed closely by contractor recommendations at 51%. The availability of rebates also played a significant role for 51% of participants.

In the case of **programmable thermostats**, contractor recommendations were the leading factor, influencing 66% of the participants. Desired features and cost to operate were also key considerations, with 50% and 48% respectively indicating their importance.

Lastly, for **water heating systems**, the primary factors were contractor recommendations at 57%, desired features at 48%, and the cost to operate at 41%.

- **Recommendation 8:** Given the higher savings potential for smart thermostats over programmable thermostats and the influence that contractor recommendations have on the decision to install the programmable thermostat, consider working with contractors to encourage them to recommend smart thermostats over programmable thermostats to their customers. If cost considerations of smart thermostats over programmable thermostats are of concern, program staff could then direct contractors to lower-cost models that have entered the market in recent years (such as Amazon models that retail for less than \$100 without a program rebate).

Replacement strategies may be limiting the savings from programmable thermostats. A larger share of customers (54.8%) reported that their new programmable thermostat replaced a different programmable thermostat, suggesting no difference between the baseline and efficient condition.

- **Recommendation 9:** Consider limiting rebates for programmable thermostats to cases where a standard thermostat is replaced.

2.3.1.6 *Additional Offerings*

Inclusion of a home energy audit program may help customers identify more comprehensive home improvements. The program does not currently offer a home energy assessment component, and these might help customers understand the best opportunities for them to improve their energy efficiency. This component could include direct installation of low-flow devices for customers with natural gas water heating.

Incentives for comprehensive window and door replacements. Partial window and door replacements occurred approximately 62.0% and 50.0% of the time, respectively. Budget concerns were the most common reason. Consider offering a bonus incentive by working with contractors who will certify complete replacements of these measures.

Consider a dedicated multifamily program. Although the program currently allows multifamily buildings to receive incentives, a dedicated multifamily program would allow it to better serve the unique needs of this market through targeted recruitment of property managers and developing incentives that are aligned with the savings potential for multifamily properties.

2.3.2 Commercial

Conclusions and recommendations for the commercial programs are summarized below.

2.3.2.1 *Communication/Awareness*

Contractors were the most common source of program awareness, although Cascade marketing and account representatives were also important sources. Forty percent of participants said they learned of the program from a contractor and a similar share learned about it from Cascade – 17.1% of customers learned about it from the Cascade website, 8.6% from a Cascade account representative, 7.1% from a Cascade mailer/bill insert. Moreover, among the 37% of program participants that viewed Cascade marketing material, about one-half considered them to be significantly or completely influential in their decision to participate.

The program implementation contractor engages in “boots on the ground” outreach as well. Although not commonly cited as a source of awareness among survey respondents, one respondent specifically mentioned a TRC representative as the source for how they learned about the program.

Despite Cascade and contractor outreach, the interviewed trade allies indicated that their customers were generally not aware of the program.

- **Recommendation 1:** Increase marketing efforts through the website, email campaigns, and mail campaigns. Given that 17.1% of participants learned about the program from the website, enhancing online visibility could be beneficial. Additional email campaigns, potentially targeted to specific business segments (if that data is available), regions, or, relative energy use may be useful.

2.3.2.2 *Point of Entry*

The application requirements were perceived favorably and do not appear to act as a barrier based on participant responses. About 96% of applicants said the application went smoothly and responses generally indicated that there were few challenges in completing the application process.

Technical assistance provided by the program helps to reduce barriers to participation. The program provided technical assistance to 37.9% of respondents. Most commonly, participants reported receiving application assistance (18.2%) or a facility assessment (12.1%).

There was little evidence of significant supply constraints presenting a barrier to participation. Four respondents reported difficulties in obtaining equipment or materials. One participant mentioned a one-week delay in receiving insulation. Two customers, both of whom installed furnaces (one also installed a water heater), experienced lengthy wait times for equipment. The fourth customer stated they needed to order their furnace.

There was some evidence that customers face barriers to implementing complete building envelope measures. Of the 11 respondents that installed insulation, 42.1% completed partial projects and cited reasons such as planning to finish later (n = 2), tenant preferences (n=2), and installation concerns (n=1). Additionally, 4 of the 5 respondents that installed new windows did not replace all windows because of cost concerns.

- **Recommendation 2:** There may be an opportunity to provide additional incentives for window replacements to encourage complete projects.

2.3.2.3 *Participation Experience*

The program contractors generally provide a high level of service, as evidenced by the positive feedback from participants. Approximately 90% of respondents indicated that contractors were timely, efficient in scheduling, and professional. However, a small number of participants reported issues: three mentioned delays, two noted poor quality of work, and one stated that not all tasks were completed.

The rebates are an important consideration for customers who purchase space heating, food service, and water heating equipment. Contractor recommendations were a top consideration for heating and water heating equipment purchasers, which highlights the importance of engaging with contractors to help them encourage customers to install efficient equipment options.

Participants who received a post-installation inspection generally viewed the process favorably. Approximately one-third of respondents (31.4%, n=22) recalled receiving an inspection after their equipment was installed. Of these, about 90% agreed that the inspector was efficient, courteous, and scheduled the inspection within a reasonable timeframe. This indicates a positive reception towards this aspect of the program.

2.3.2.4 *Impact/Effectiveness*

Overall, respondents expressed high satisfaction with the program, the rebate process, and the installed equipment. Ninety-one percent of respondents reported being somewhat or strongly satisfied with the program overall, with no reports of dissatisfaction with the program overall. A small number of respondents (n=5) did express dissatisfaction with the time to get the rebate and the steps to get the rebates, citing reasons such as insufficient information from contractors (n=3), unresponsiveness (n=1), and delays in receiving rebates (n=1). These concerns highlight opportunities for improving contractor communication and responsiveness to further enhance participant satisfaction.

Contractors were largely satisfied with the program. All three of the interviewed contractors were satisfied with the application process. Two were satisfied with the program overall and one was neutral.

None of the contractors reported dissatisfaction. All contractors said that providing annual training opportunities in the form of kick-off meetings that provided information on program changes would be beneficial. Relatedly, nine of the 68 contractors contacted for an interview indicated that they were not aware of Cascade’s program despite program data indicating their involvement in a project – a result that suggests a need to strengthen communications and contractor engagement.

- **Recommendation 3:** Enhance communications with contractors to increase engagement. Provide annual trade ally kick-off trainings to keep them informed about and engaged in the program. Part of this training can include setting expectations on how to communicate with participants about how the program works since a few customers were dissatisfied because their contractor did not provide enough information about the program. These trainings will also provide a good opportunity to get feedback on the program and current information about market conditions. Additionally, consider sending monthly or quarterly email communications to contractors providing any updates to them but with the primary goal of maintaining awareness of the program.

2.3.2.5 Self vs. Third Party Program Implementation

Interviews with two utilities demonstrated pros and cons to both third-party and in-house implementation models for commercial programs. For Cascade, some key considerations in contemplating a transition to in-house implementation include the following. Section 5.5 “Other Gas Utility Staff Interviews” provides additional information regarding these questions.

- Does Cascade have the staffing, both in terms of technical expertise and managerial capacity, to self-run the C&I programs? The issue of technical expertise may be particularly of consequence when considering custom projects which may include complex measures and savings calculations.
- Would Cascade be able to effectively replace the implementation contractor’s “boots on the ground” outreach, or could the program go without it? This is an important consideration given Cascades non-contiguous service area. While survey respondents suggest that this outreach is not driving program awareness, interviewed trade allies view was that customers are generally not aware of the programs and continued outreach may help mitigate skepticism about the program rebates.
- Do staffing projections and other cost considerations suggest that in-house implementation would allow Cascade to reduce its program delivery costs? Consideration of the costs should include the resources the implementation contractor may provide to support program infrastructure such as data tracking systems that would need to be replaced by Cascade.
- Can Cascade’s implementer bring knowledge from implementing programs around the country that will benefit Cascade’s program design and delivery? Some considerations when thinking about this question are the extent to which the Washington codes and standard requirements may limit transfer of knowledge from other jurisdictions, the level of expertise an implementer brings to support marketing and outreach strategies, and the ability of an implementer to contribute to new measure development.
- Would Cascade have the capacity to scale up or scale down staff resources to accommodate seasonal changes in workload or changes in the portfolio scope over multiple years?

Understanding what short term outsourcing could be arranged as needed to accommodate increased workloads.

2.3.2.6 Additional Offerings

Consider bundling installation of free low-cost low flow devices with customer outreach. Installing devices such as low-flow faucet aerators and pre-rinse spray valves in businesses with natural gas water heating is a way to generate additional savings for customers and an opportunity to talk about the program rebates. This can supplement Cascade’s kit offering and may be well suited to focus on the food service industry, providing an opportunity to talk about food service rebates.

Consider adding a boiler tune-up offering to help customers improve the efficiency of their existing boiler systems. Boiler tune-ups accounted for more than 50% of therm savings for Nicor Gas’s prescriptive program in 2022 and is offered by other regional utilities such as Dominion Energy in Utah and Idaho.²

² <https://www.ilsag.info/wp-content/uploads/Nicor-Gas-Business-Energy-Efficiency-Rebates-2022-Impact-Evaluation-Report-2023-05-14-Final.pdf>

https://www.thermwise.com/wp-content/uploads/04-Business_HVACBoilers-UT_2024.pdf

3 INTRODUCTION

ADM evaluated Cascade Natural Gas’s (Cascade) portfolio of energy efficiency programs for PY2022 and PY2023 combined. This work was completed in conjunction with the impact evaluation for Cascade Natural Gas’s portfolio, summarized in separate impact evaluation reports.

This report focuses on the process evaluation of Cascade’s PY2022-PY2023 portfolio in the state of Washington and Oregon for the natural gas programs offered by Cascade. This report identifies opportunities and offers recommendations to improve the effectiveness of the programs offered to Cascade’s customers through its energy efficiency portfolio.

3.1 SUMMARY OF EVALUATION APPROACH

The Evaluator tailored their evaluation questions and activities by program for Cascade’s portfolio of programs. However, many of the data collection activities were similar. The main activities the Evaluator conducted were:

- Staff interviews and document review
- Participant web surveys
- Non-participant web surveys
- Stakeholder interviews (Program staff and Community Action Program staff)
- Trade ally (contractors and builder) interviews

The following table lists the evaluation activities conducted for each program during the evaluation period.

Table 3-1: Process Evaluation Activities by Program

Program	Process Evaluation Activity			
	Participant Survey	Non-participant Survey	Staff Interview	Trade Ally Interview
Residential				
New Homes		X	X	X
Existing Homes	X		X	X
Low Income	X		X	X
Commercial Programs				
C&I Prescriptive	X	X	X	X
C&I Custom	X	X	X	X

Copies of the survey instruments are provided in Appendix A of this process evaluation report and the interview guides displayed in Appendix B of this report.

3.2 ORGANIZATION OF THE REPORT

This report includes the process evaluation findings across all programs in the portfolio-wide assessment³. The report is organized as follows.

- Chapter 3 presents an overview of the process evaluation approach and data collection activities.
- Chapter 4 presents the process evaluation of the residential programs.
- Chapter 5 presents the process evaluation of the commercial programs.
- Chapter 6 is an appendix that contains the survey instruments and interview guides.

³ The impact evaluation findings, conclusions, and recommendations for this evaluation period are reported in a separate impact evaluation report.

4 PROCESS EVALUATION METHODS AND DATA COLLECTION

This chapter summarizes the process evaluation approach and data collection activities.

4.1 DATABASE REVIEW

To prepare for and understand program design and delivery, the Evaluator reviewed program materials and documentation provided by Cascade. This included detailed program descriptions, program hand-out materials, and Cascade's website. Additionally, the Evaluator reviewed program tracking data to understand how the program tracks and documents program participation and key variables.

4.2 SURVEY SAMPLING METHODOLOGY

The Evaluator completed surveys of program participants and residential non-participant customers.

The Evaluator used the following equations to estimate sample size requirements for each data collection effort.

Required sample sizes were estimated as follows:

Equation 4-1: Sample Size for Infinite Sample Size

$$n = \left(\frac{Z \times CV}{d} \right)^2$$

Equation 4-2: Sample Size Correction for Finite Population

$$n_0 = \frac{n}{1 + \left(\frac{n}{N} \right)}$$

Where,

- n = Sample size
- Z = Z-value for a two-tailed distribution at the assigned confidence level.
- CV = Coefficient of variation
- d = Precision level
- N = Population

For a sample that provides 90/10 precision, $Z = 1.645$ (the critical value for 90% confidence) and $d = 0.10$ (or 10% precision). The remaining parameter is CV , or the expected coefficient of variation of measures for which the claimed savings may be accepted. A CV of .5 was assumed for residential programs due to the homogeneity of participation⁴, which yields a sample size of 68 for an infinite population. Sample sizes were adjusted for smaller populations via the method detailed in Equation 4-2.

⁴ Assumption based off California Evaluation Framework:

https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/EE_and_Energy_Savings_Assist/CAEvaluationFramework.pdf

4.2.1 Sampling Plan

The Evaluator deployed surveys for each of the Residential and Commercial programs offered through Cascade in PY2022 and PY2023, however, for the Commercial program’s participant survey, the sample was based on participants that completed projects between PY2019 and PY2023. The primary purpose of conducting these surveys is to gather information about customer satisfaction, customer feedback, and to confirm that the measure was installed and is still currently operational.

The Evaluator summarized the final sample sizes shown in Table 4-1 for the each of the data collection activities. The reported precision is based on an assumed coefficient of variation of .5 and a 90% confidence level.

Table 4-1: Survey Sample and Precision by Program

Sector	Program	Contacts	Responses	Percent of Contacts	Precision
Residential & Low Incomes	Existing Homes	3,194	498	15.6%	3.4%
	Low Income	82	14	17.1%	20.1%
	Non-Participants	2,484	409	16.5%	4.1%
Commercial	Prescriptive/Custom	397	70	17.6%	8.9%

4.3 WEB SURVEYS

The Evaluator administered a web-based survey to program participants and a sample of Cascade customers who did not participate in the residential programs since 2021.

Participants and non-participants were sent email invitations asking them to complete the survey. Non-respondents to the initial survey were sent up to two reminder emails. Customers were offered a \$10 Visa gift card to complete the survey.

4.4 IN-DEPTH INTERVIEWS

This section summarizes the Evaluators’ approach to completing the in-depth interviews with program staff, trade allies, and builders.

4.4.1 Program Staff Interviews

The Evaluator completed interviews with four utility staff in 2023. Collectively, the interviews covered each program in Cascade’s portfolio. The staff interviews addressed the following topics:

- The historical context of the energy efficiency programs;
- Program design and qualification requirements;
- Processes for recruiting customers into the programs;
- Data management and tracking processes and issues;
- Issues or challenges staff face in delivering the energy efficiency programs; and
- Planned or desired changes in program administration in the future.

4.4.2 Stakeholder Interviews

The Evaluator completed interviews with various stakeholders engaged in Cascade’s programs (Table 4-2). Respondents were provided a \$50 incentive to complete the interview. These interviews provided

an opportunity to collect additional in-depth qualitative information on stakeholders’ experiences with the programs and the impact the program has had on them. The interviews were designed to be completed within 30 minutes.

Table 4-2: Summary of Stakeholder Interviews

Group	Contacts	Responses	Percent of Contacts
New Homes builders	37	3	8.1%
CAP Agency representatives	17	5	29.4%
Commercial trade allies	68	11	16.2%
Other natural gas utility representatives	NA	2	NA

5 RESIDENTIAL PROGRAMS PROCESS EVALUATION

5.1 INTRODUCTION & METHODOLOGY

Cascade provides residential customers living in single family, manufactured, and multi-family homes with a variety of rebates and incentives that encourage the purchase of energy efficient equipment. Cascade's residential programs offer rebates for appliances such as furnaces, water heaters, smart thermostats, as well as for building shell and weatherization measures such as windows, duct sealing, and ceiling insulation.

The process evaluation of the Residential Program included the following data collection activities:

- *Cascade Program Staff Interviews.* The Evaluator interviewed four utility staff in 2023. Staff were involved in the administration of the New Homes, Existing Homes, and Low-Income Programs. These interviews collected information from program staff about program design, administration, marketing, and stakeholders.
- *Program Participant Surveys.* The Evaluator conducted surveys with a series of program participants. These surveys covered a range of topics, including program awareness, participation, and satisfaction.
- *Program Non-Participant Surveys.* The Evaluator conducted surveys with a series of non-participants. These surveys covered a range of topics, including program awareness, energy use behaviors and sentiments, and reasons for non-engagement.
- *Builder Interviews.* The Evaluator interviewed builders who participated in the New Homes program.
- *CAP Agency Representative Interviews.* The Evaluator interviewed CAP Agency representatives who implemented the low-income program in Cascade's service territory.

5.2 RESIDENTIAL PROGRAMS STAFF INTERVIEW

Evaluator interviewed four Cascade Natural Gas staff members about the residential programs in December 2023. Interviewed staff included the program manager, energy efficiency strategies manager, rebate processing manager, and low-income program manager. Cascade has self-implemented the residential program for the past eight years. The residential program includes three sub-programs: existing homes, new homes, and low-income.

5.2.1 Existing Homes

The existing homes program provides customers with incentives and rebates for installing various energy efficient equipment and measures, including HVAC equipment, water heaters, smart thermostats, and weatherization measures. Customers interested in participating in the program can submit invoices via the Cascade website or through their contractor and receive a rebate. The program does not include a home energy audit or assessment. Customers are encouraged to buy multiple different types of efficient equipment via bundle discounts and bonuses.

The program has a large trade ally network of about 140 service providers, 20-25 of whom are considered point-of-sale trade allies. Point-of-sale trade allies can provide instant rebates to participating customers, thereby minimizing the hassle and application process typically necessary for

participation. Customers who work with non-point-of-sale trade allies can participate by submitting a rebate application and receiving the rebate once the program has approved it. Staff explained that about 20% of the registered trade allies (about 28) are very active in the program, while the remaining trade allies are less engaged.

Staff indicated that participating trade allies often generate their own project leads. They noted that word-of-mouth or neighbors seeing work being done on other homes has led to consecutive projects in specific areas in their service territory. Staff also indicated that engagement in their territory's rural areas continues to lag. They explained that the lower population density and far-away locations often dissuade trade allies from working in these areas because they are less lucrative. In an attempt to combat these geographical disparities in engagement, staff are considering increasing outreach in those areas as well as offering the trade allies additional incentives for completing jobs there.

In addition to trade ally driven outreach, Cascade promotes residential program offerings through bill inserts, booths at home and garden shows, attendance at home builder association meetings, and radio and television advertisements.

Staff are working to improve the web-based experience of the program. Specifically, they are addressing user-interface bugs on the website and application portal. Staff mentioned that many updates to the website are being made at the enterprise level, limiting their control over the web design process.

In the past, Cascade staff conducted verifications and audits in a portion of participants' homes. Due to the increased volume of projects, Cascade has enlisted the assistance of community action program (CAP) representatives to conduct these audits. These CAP representatives are the same personnel involved in the low-income program, ensuring that established relationships and existing knowledge are leveraged.

5.2.2 New Homes

The New Homes program functions similarly to the Existing Homes program. Major differences include the fact that 1) builders, rather than homeowners, are typically the participants in the program and 2) weatherization and shell measures are not eligible for incentives. Staff noted that the updated energy codes and their rules regarding natural gas space and water heating equipment are still fairly new and therefore they had not received much feedback at the time of the interview. In past impact evaluations, Cascade has noted that their program team has had to update qualifying product lists to a significant degree in response to Washington's advancing codes and standards.

5.2.3 Low Income

The low-income program is an enhanced version of the existing homes program, with three primary differences: 1) the target market served, 2) the incentive structure, and 3) CAP Agency involvement. Unlike the existing homes program, the low-income program offers incentives for energy efficient equipment upgrades to customers who meet specific income-based criteria. Low-income program projects are typically more expensive as they take a whole-home approach and often include various incidental, health, and safety related measures. The low-income program services are provided at no cost to the customer.

Whereas in the existing homes program CAP agencies provide auxiliary support, all low-income program projects go through CAP agencies. To date, Cascade works with six of the eleven CAP agencies in

Cascade's service territory. These agencies are funded by the state's commerce department and receive funds from Cascade and other Washington and Oregon utilities to provide energy efficiency services to community members. CAP agencies are responsible for confirming customers' eligibility, conducting audits, hiring contractors, and performing quality control tests. Cascade provides the agencies funding, as well as processes the rebate applications.

Low-income program projects typically include health and safety measures. Cascade staff rely on CAP agency staff to decide what measures and upgrades are necessary to both complete the installation in the home and provide customers with the energy efficient measures they seek.

Cascade staff noted that one of the largest barriers facing the low-income program is high turnover among CAP agency staff and broader workforce development trends. They explained that many agency staff have been in their roles for 25-30 years, and there is a lack of a solid pipeline of individuals ready and interested in taking these jobs as the tenured staff retire. Aware of this growing concern, Cascade is collaborating with CAP agencies to identify barriers and explore opportunities for additional training programs.

5.3 EXISTING HOMES – PARTICIPANT SURVEY

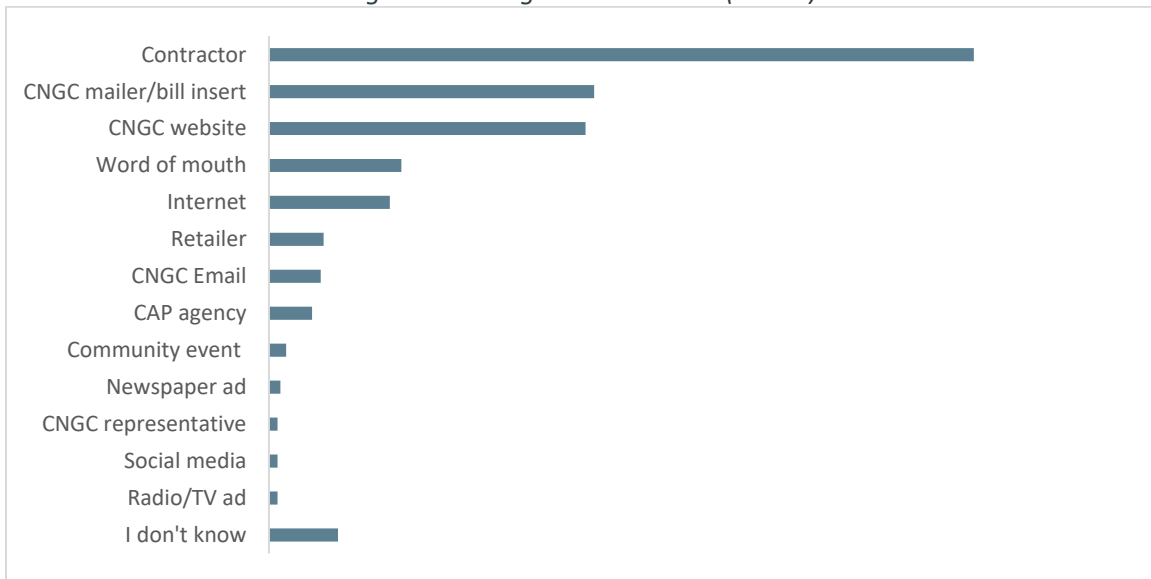
5.3.1 Participant Survey

The Evaluator conducted a survey of Cascade residential rebate program participants from the 2022 and 2023 program years to gather feedback about customers' engagement with and experience of the program. Participants were contacted via email three times and asked to complete a survey. In total, 3,194 participants had valid email addresses and 588 responded to survey efforts. Of the 588 respondents, 498 had valid and complete survey responses and were included in the analysis.

5.3.1.1 *Program Awareness & Motivation to Participate*

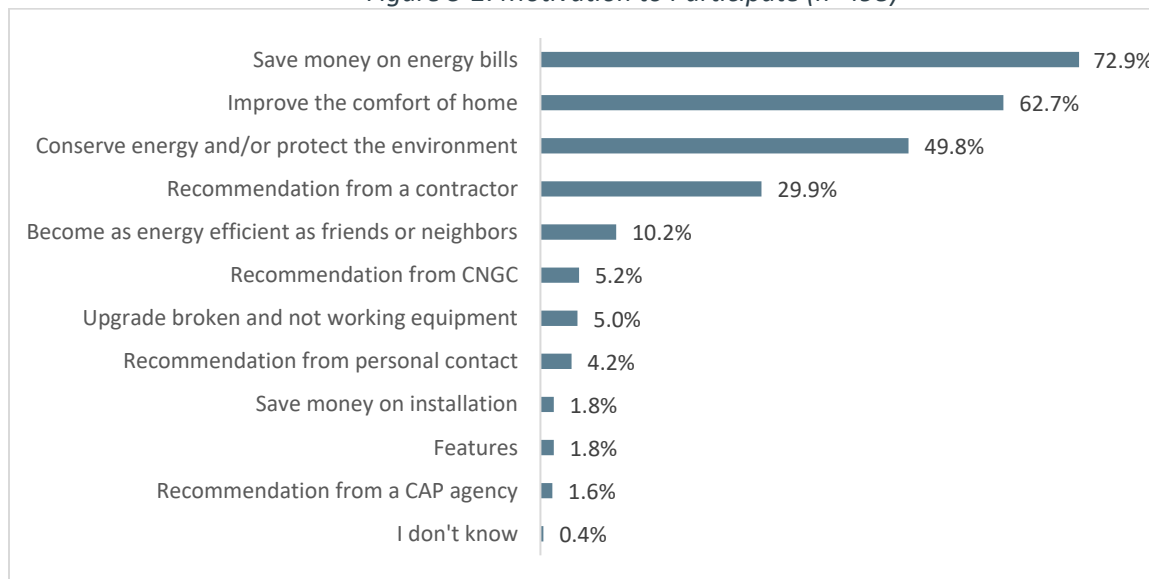
Contractors are driving program awareness, but Cascade marketing also plays an important role in making customers aware of the program. Respondents learned about the program through a variety of avenues, most commonly through their contractor (49.2%, n=245) (Figure 5-1). Additionally, 22.1% learned of the program from the program website, 15.5% from a bill insert, 7.2% from a Cascade mailer and 3.6% from a Cascade email.

Figure 5-1: Program Awareness (n=498)



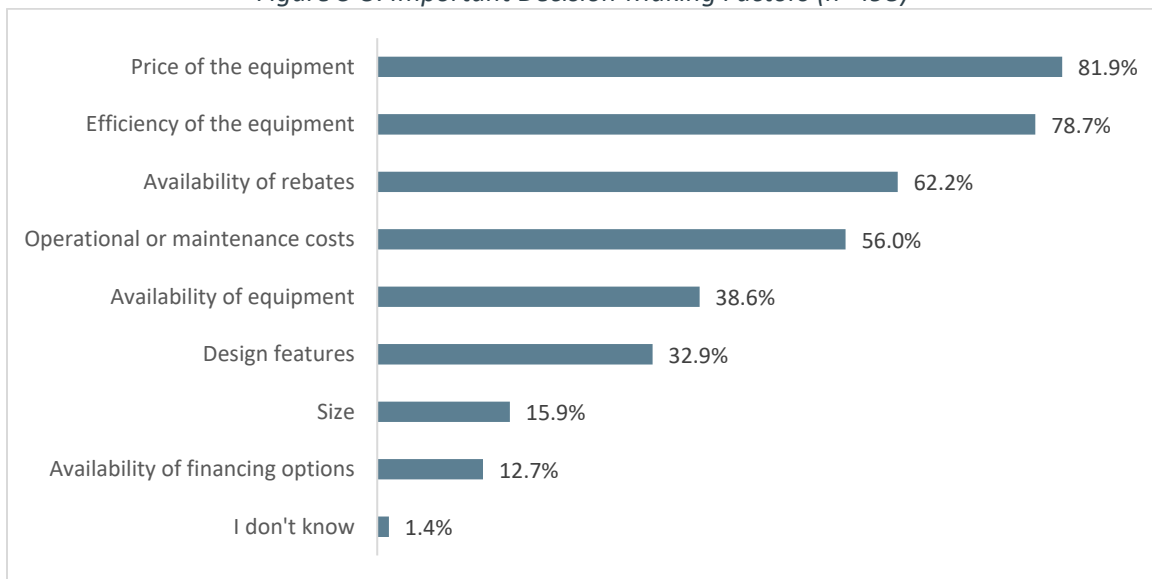
Saving money on energy bills (72.9%, n=363) and improving home comfort (62.7%, n=312) were the top two motivations for making the program rebated efficiency improvements. Other factors such as a desire to conserve energy and protect the environment (49.8%) were also considered important and are summarized in Figure 5-2.

Figure 5-2: Motivation to Participate (n=498)



Many factors were important considerations for participants, but equipment price and efficiency were key factors when deciding to participate in the program. The majority of respondents considered the price of the equipment (81.9%, n=408) and the efficiency of the equipment (78.7%, n=392) when deciding whether or not to participate and the type of equipment to purchase (Figure 5-3). As shown, rebates were also a common consideration.

Figure 5-3: Important Decision-Making Factors (n=498)



When considering installing program qualified equipment, respondents often relied on recommendations from contractors and personal contacts. Two-thirds of respondents relied on a recommendation from a contractor or retailer when thinking about purchasing and installing the equipment rebated through the program (**Error! Not a valid bookmark self-reference.**).

Table 5-1: Source of Information (n=498)

Source	%	n
Contractor/retailer recommendation	65.7%	327
Recommendation from a personal contact	25.3%	126
Utility marketing material or information	19.1%	95
Online reviews	8.4%	42
Save money on equipment	2.6%	13
Replace broken equipment	1.8%	9
Previous experience	1.2%	6
Features	0.6%	3

Although Cascade marketing materials were not broadly viewed by participants, these materials were considered influential by about 15% of participants who viewed them and said they were significantly or completely influential in their decision. Just under half of respondents reviewed Cascade marketing materials and/or advertisements before participating (46.2%, n=230). Among these respondents, more than half reviewed the Cascade website (57.4%, n=132), more than one-third reviewed a Cascade mailer or bill insert (38.7%, n=89), and 13.9% (n=32) reviewed a Cascade email. Just under one-third of respondents indicated the marketing materials significantly or completely influence their decision to participate (Figure 5-4). Three-quarters of respondents were most motivated by the information about the rebate offer (76.5%, n=176) (Table 5-2).

Figure 5-4: Marketing Materials Degree of Influence (n=230)

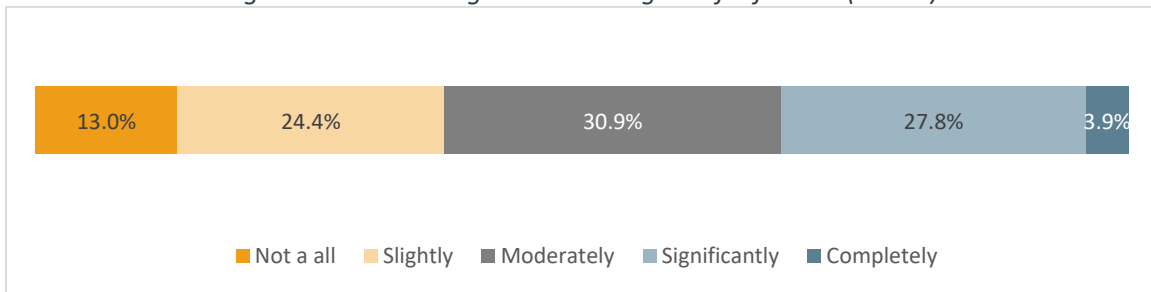
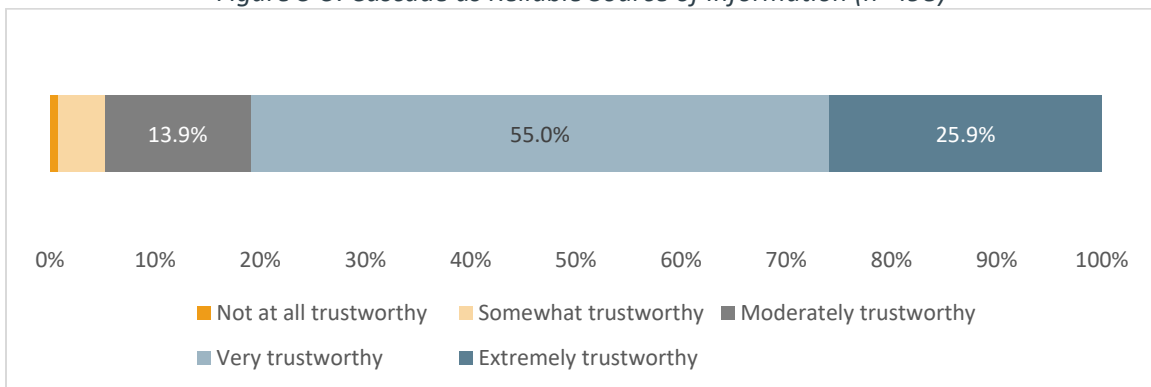


Table 5-2: Aspects of Marketing Materials (n=230)

Source	%	n
Information about the rebate offer	76.5%	176
Environmental impact or energy efficiency information	36.1%	83
Details on the benefits of the product or service	33.9%	78
Trust in Cascade Natural Gas	17.8%	41
Clarity and appeal of the marketing presentation	6.5%	15
Recommendations or endorsements included in the materials	5.2%	12
Not sure	1.7%	4

Moreover, Cascade marketing is likely to generally be effective among participating customers because most respondents considered Cascade Natural Gas a very or extremely trustworthy source of information regarding energy efficiency (80.9%, n=403) (Figure 5-5).

Figure 5-5: Cascade as Reliable Source of Information (n=498)



When making improvements to their home, generally, more than one-third of respondents were most motivated by increasing energy efficiency (39.3%, n=169) and improving home comfort (36.3%, n=156) and one-quarter were most motivated about their home’s health and safety (24.4%, n=102).

5.3.1.2 Program Participation

Respondents reported receiving rebates for a variety of measures and that most equipment was still installed and working. Respondents received rebates for a variety of different energy efficient equipment including furnaces, attic/ceiling insulation, floor/wall insulation, and programmable thermostats (Table 5-3).

Table 5-3 Type and Number of Measures Received (n=498)

Measure Category	Equipment Still Installed	Equipment Still Working
Furnace (n=219)	216	212
Attic/ceiling insulation (n=90)	NA	NA
Floor/wall insulation (n=88)	NA	NA
Programmable thermostat (n=84)	81	83
Smart thermostat (n=70)	69	68
Tankless water heater (n=53)	53	53
Windows (n=50)	NA	NA
Duct sealing (n=42)	NA	NA
Fireplace (n=26)	26	26
House sealing (n=12)	NA	NA
Doors (n=6)	NA	NA
Condensing boiler (n=5)	5	5

While most participants thought that the application process was clear, some found identifying what equipment qualified and what the rebate process looked like to be unclear. Most respondents completed the rebate application themselves (81.1%, n=404) and about three-quarters of these respondents found the application to be very clear (73.3%, n=296). Among the 108 respondents who found the application not at all clear or somewhat unclear, the biggest complaints were confusion over what type of equipment qualified (n=51) and what the process for getting the rebate looked like (n=51).

5.3.1.2.1 Heating Equipment: Furnaces & Fireplaces

Contractor recommendation was the most common factor considered when installing a furnace and desired features were the most common factor considered for fireplaces. The most popular factor respondents considered when choosing their furnace and fireplace varied. Contractor recommendation was the most popular for furnace purchasers, while desired features were the most popular for fireplaces purchasers (Table 5-4). Other population considerations included rebate availability (furnaces and fireplaces), operation costs (furnaces), and right size/color (fireplaces).

Table 5-4: Considerations for New Equipment (n varies)*

	Furnace (n=219)	Fireplace (n=26)

	%	n	%	n
Contractor recommendation	64.8%	142	26.9%	7
Rebate available	46.6%	102	57.7%	15
Desired features	45.7%	100	84.6%	22
Cost less to operate	42.5%	93	30.8%	8
Good price	38.4%	84	30.8%	8
Desired brand	37.9%	83	15.4%	4
Good for the environment	29.7%	65	19.2%	5
Right size/color	19.6%	43	46.2%	12
Retailer recommendation	14.6%	32	30.8%	8
It was all that was available/only choice	7.3%	16	0.0%	0
I don't know	0.5%	1	0.0%	0

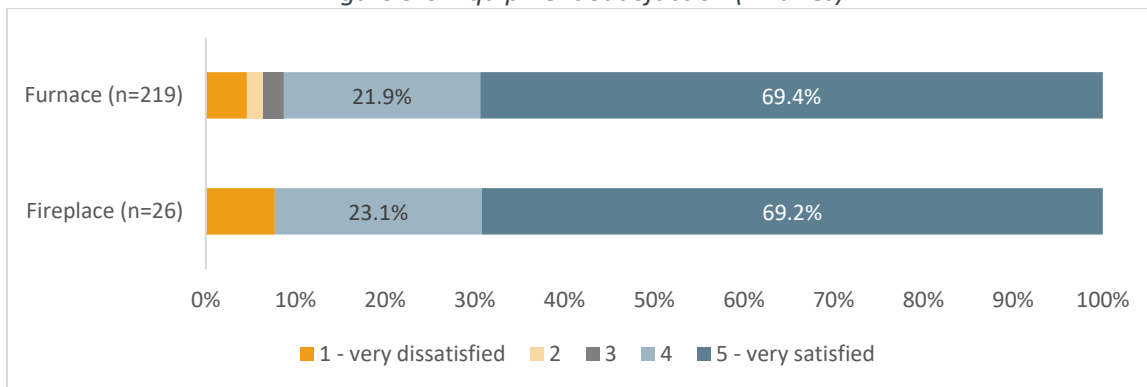
*top two considerations for each measure are highlighted in blue

Qualifying heating equipment is generally available for purchase and installation. Few respondents had difficulty getting a furnace (n=16) or fireplace (n=1) that qualified for a rebate. A majority of furnace buyers received their furnace within two weeks (56.6%, n=124) and most fireplace buyers received their fireplace within one month (69.2%, n=18).

The majority of furnace (97.7%, n=214) and fireplace (65.4%, n=17) recipients replaced an old system. Most of the furnace recipients replaced a gas furnace (92.1%, n=197) and most of the fireplace recipients replaced either a gas fireplace (64.7%, n=11) or wood burning fireplace (35.3%, n=6).

In general, furnace and fireplace recipients were satisfied with their new equipment (Figure 5-6).

Figure 5-6: Equipment Satisfaction (n varies)



5.3.1.2.2 Thermostats: Smart and Programmable

While desired pricing and features were the most important consideration for the purchase of smart thermostats, contractor recommendation was the most important consideration for those who bought a programmable thermostat. One hundred and fifty four respondents received a rebate for either a programmable thermostat (n=84) or smart thermostat (n=70). More than half of the smart thermostat respondents chose their thermostats based on desired features and rebate availability, while half or more than half of programmable thermostat respondents chose their thermostat based on desired features and contractor recommendations (Table 5-5).

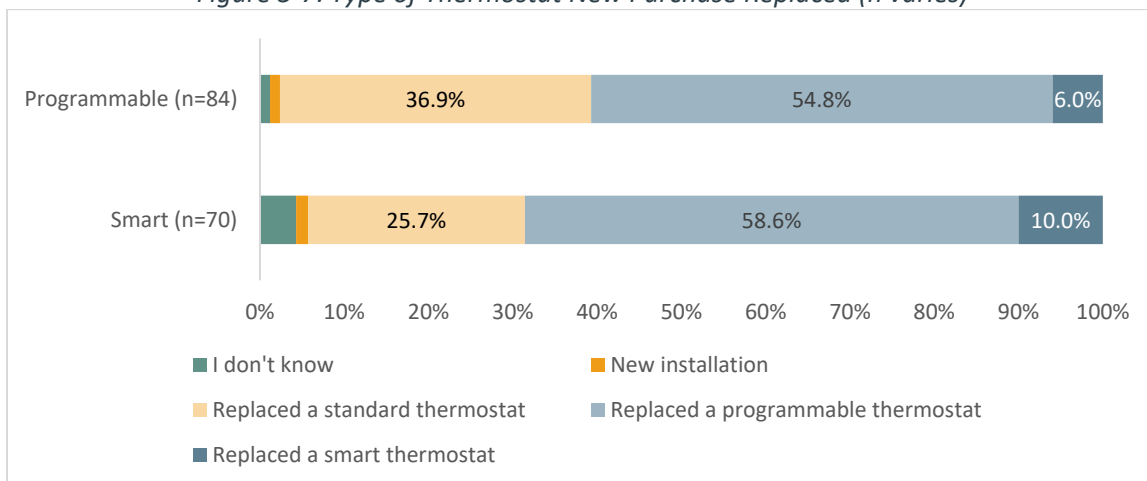
Table 5-5: Considerations for New Equipment (n varies)

	Smart (n=70)		Programmable (n=84)	
	%	n	%	n
Desired features	57.1%	40	50.0%	42
Rebate available	51.4%	36	26.2%	22
Good price	44.3%	31	29.8%	25
Contractor recommendation	37.1%	26	65.5%	55
Good for environment	20.0%	14	13.1%	11
Desired brand	20.0%	14	14.3%	12
ENERGY STAR label	17.1%	12	4.8%	4
Lower operation cost	14.3%	10	10.7%	9
Desired color/size	12.9%	9	8.3%	7
Retailer recommendation	4.3%	3	10.7%	9
Only available equipment	2.9%	2	11.9%	10

*top two considerations for each measure are highlighted in blue

Customers commonly reported that new thermostats replaced the same type of thermostat they previously had installed, and this may limit the achievable savings for these measures. For programmable thermostats, 54.8% of the rebated measures replaced another programmable thermostat and 10% of smart thermostat installations replaced another smart thermostat (Figure 5-7). More than half of both smart thermostat (61.4%, n=43) and programmable thermostat respondents (71.4%, n=60) use their thermostats to control both their heating and cooling systems; the remaining respondents use their thermostats for their heating systems only. Most respondents heat their homes via central furnaces (Smart: 82.9%, n=58; Programmable: 81.0%, n=68).

Figure 5-7: Type of Thermostat New Purchase Replaced (n varies)



5.3.1.2.3 Water Heating Equipment: Condensing Boilers & Water Heaters

Contractor recommendations and desired features were the most common reasons for selecting a qualifying boiler or water heater. Fifty-eight respondents received rebates for either condensing boilers (n=5) or water heaters (n=53); these responses are combined into one category. The most popular

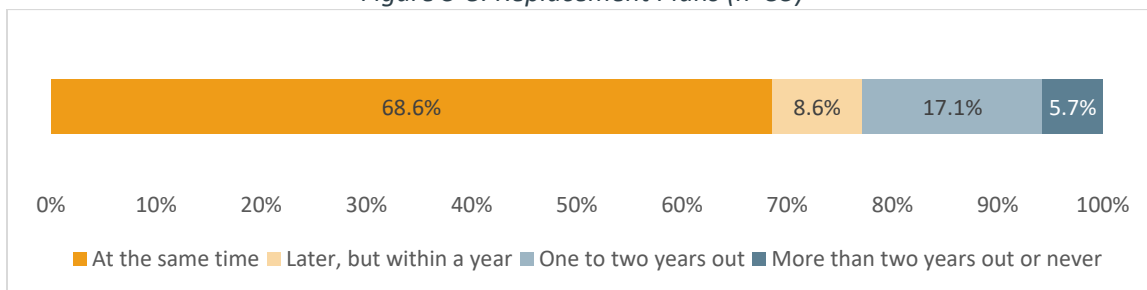
factor respondents considered when choosing their water heater equipment was contractor recommendations (56.9%, n=33) and desired features (48.3%, n=28) (Table 5-6).

Table 5-6: Considerations for New Water Heating Equipment (n=58)

	%	n
Contractor recommendation	56.9%	33
Desired features	48.3%	28
Rebate availability	41.4%	24
Lower operation costs	41.4%	24
ENERGY STAR label	41.4%	24
Good for environment	32.8%	19
Good price	20.7%	12
Desired brand	8.6%	5
Retailer recommendation	6.9%	4
Only option	1.7%	1
Don't know	1.7%	1

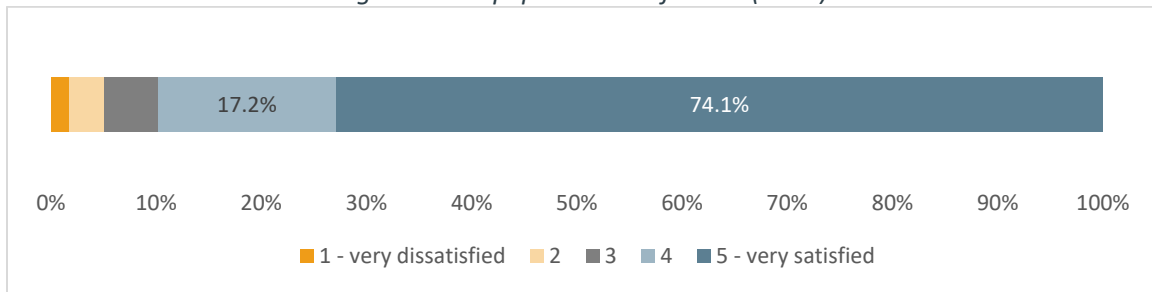
Replacement of working systems was common for water heating equipment, suggesting that early replacement may be contributing to measure impacts. The majority of water heating equipment recipients replaced an old system (86.2%, n=50) and more than half of those old systems were working at the time of replacement (70.0%, n=35). However, the program may have had limited influence on the replacement decision. Among the 35 respondents who replaced working water heating equipment, about two-thirds indicated they would have replaced their equipment at the same time even without the Cascade rebate (Figure 5-8). Two respondents had difficulty getting a water heater that qualified for a rebate. Two-thirds of the water heater respondents received their equipment within two weeks (67.3%, n=39).

Figure 5-8: Replacement Plans (n=35)



More than three-quarters of the water heating equipment recipients replaced gas fueled equipment (78.0%, n=39). In general, customers who installed water heating equipment were satisfied with their new equipment (Figure 5-9).

Figure 5-9: Equipment Satisfaction (n=58)



5.3.1.2.4 Building Envelope: Windows, Doors, and Insulation

More than one-third of respondents received rebates for building envelope upgrades like windows, doors, and insulation measures (37.6%, n=187). Attic/ceiling and floor/wall insulation were the most popular building envelope measures, followed by windows (Table 5-7).

Table 5-7: Building Envelope Measures

Measure Category	Respondents
Attic/ceiling insulation	90
Floor/wall insulation	88
Windows	50
Duct sealing	42
House sealing	12
Doors	6

Participants were asked whether the envelope improvements were full or partial improvements. The results are summarized in the table below and details follow.

Table 5-8: Building Envelope Measures

Measure Category	Respondents	Full House Covered	Most Common Reason for Partial Coverage
Attic/ceiling insulation	90	81	Unnecessary
Floor/wall insulation	88	60	Unnecessary
Windows	50	29	Budget
Duct sealing	42	34	Unnecessary
House sealing	12	NA	NA
Doors	6	3	Budget

Partial replacements of windows and doors were fairly common and cost concerns was the most common reason for the partial replacement. More than half of window recipients replaced all their single-pane windows (58.0%, n=29) and half the exterior door recipients replaced all their exterior doors (n=3). Among the respondents who did not replace all their windows (n=21) and all their exterior doors (n=3), the most common reason for non-replacement was budget concerns (windows: 71.4%, n=15; doors: 100.0%, n=3) and more than one-third of window recipients and all three door recipients noted they plan to replace the rest of the windows (38.1%, n=8) and doors (100.0%, n=3).

Most customers that installed attic insulation insulated all the of their attic space. The majority of attic insulation respondents insulated their entire attic space (90.0%, n=81); four respondents were not sure if the insulated their entire attic space and among the five respondents who indicated they did not insulate their entire attic space, reasons for partial insulation included insulation not necessary (n=2), structural limitations (n=1), garage space not rebated (n=1), and additional area already insulated (n=1).

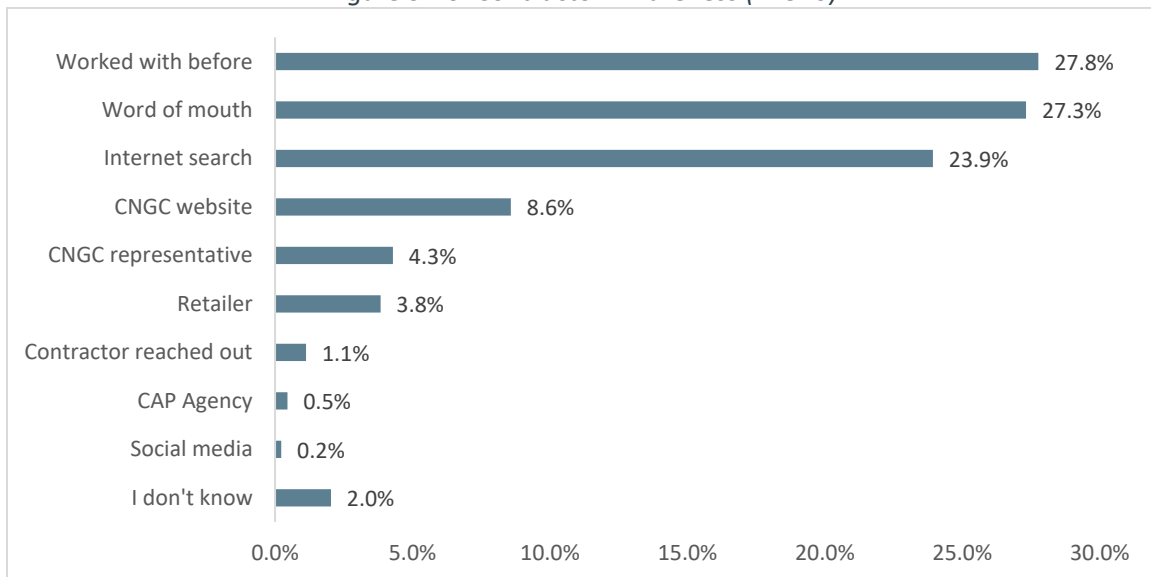
Partial wall and floor insulation projects were common. Two-thirds of floor and wall insulation respondents did not insulate all of their homes' floors and walls (68.2%, n=60). Reasons for partial insulation included insulation not necessary (31.7%, n=37), budget concerns (21.7%, n=13), structural limitation (21.7%, n=13), and insulation already in parts of the floor/walls (15.0%, n=9). Eleven respondents noted they plan to complete the wall and floor insulation in the future (18.3%, n=11).

Duct sealing projects were more typically fully completed than for other measures. Most duct sealing respondents sealed all of their ducts (81.0%, n=34); four were not sure (9.5%). Among the four respondents who did not seal all their ducts, one planned to seal the rest of their ducts in the future and the remaining three did not need to seal the rest of their ducts.

5.3.1.3 Contractor Experience

Customers are generally working with contractors who they worked with before, or learned of through word of mouth or an internet search; Cascade's website was not a common source for contractor information. The majority of respondents indicated they used a contractor to install their equipment (89.0%, n=443). One-quarter of respondents used a contractor they had worked with before (27.8%, n=123) and one-quarter found their contractor through word of mouth (27.3%, n=148) (Figure 5-10).

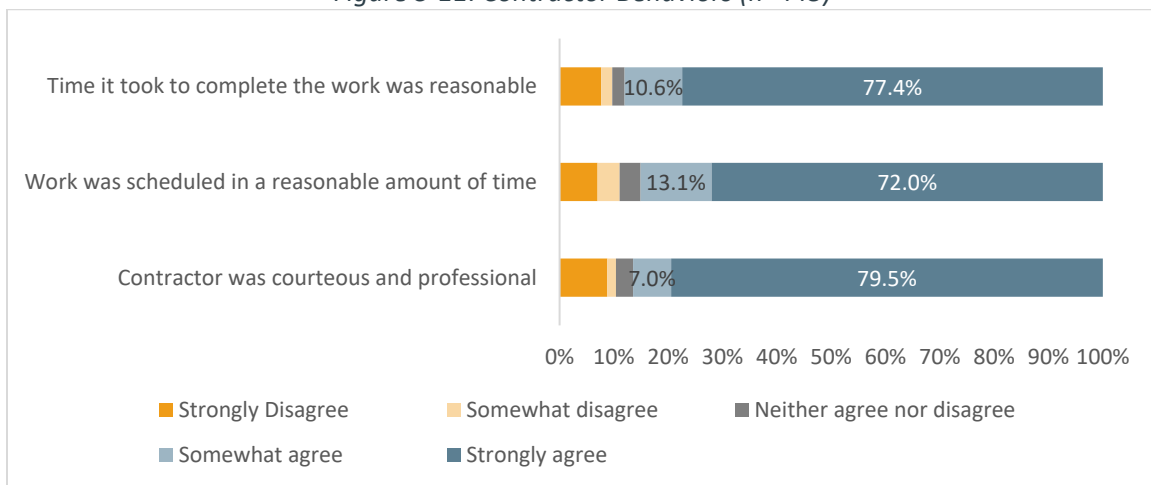
Figure 5-10: Contractor Awareness (n=316)



Most participants were aware they received a Cascade rebate either through direct receipt of it or because their contractor informed them. Most respondents indicated they received the rebate directly (84.4%, n=374); among the 37 respondents who noted that their contractor received the rebate, most confirmed that their contractor showed them the rebate amount they would be receiving (91.9%, n=34).

In general, respondents believed their contractor scheduled and completed the work in a reasonable amount of time and was courteous and professional (Figure 5-11). Among the 27 respondents who expressed some dissatisfaction with their contractor the main complaints were that the project took a long time to complete (n=15), the contractor was unprofessional (n=4), the work quality was poor (n=4), or there was poor communication (n=3).

Figure 5-11: Contractor Behaviors (n=443)



Some contractors are identifying additional energy savings opportunities beyond the rebated project. One quarter of respondents indicated their contractor identified other energy saving opportunities in their homes (27.8%, n=123). Specific recommendations included insulation, windows, and heating and cooling equipment, among others (Table 5-9).

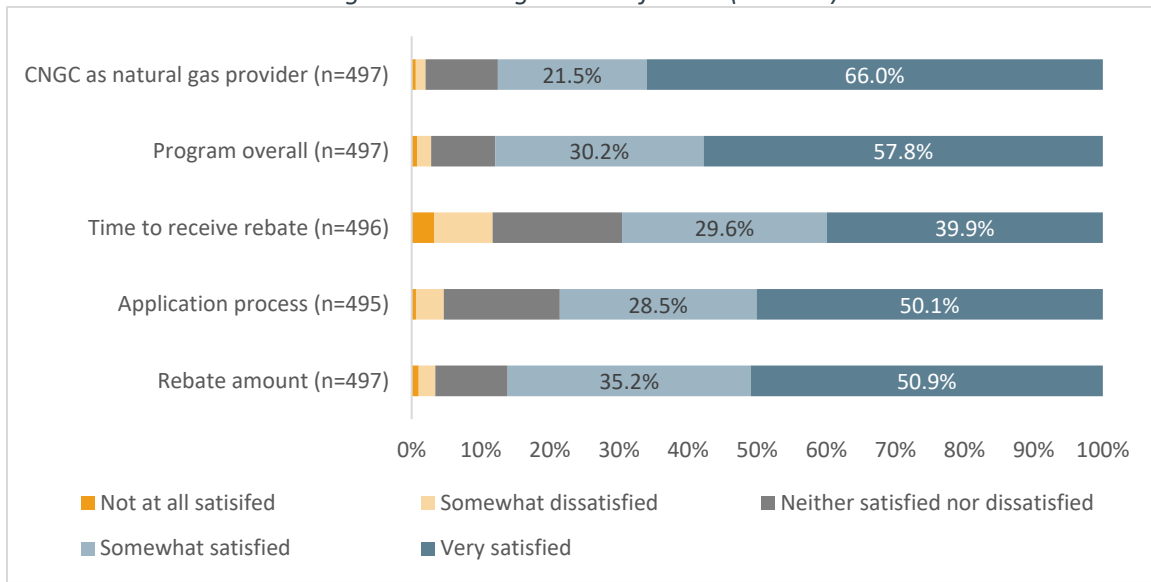
Table 5-9: Recommended Equipment Upgrades (n=90)

	n
Insulation/duct work	54
Windows	19
AC	14
Water heater	11
Heat pump	10
Furnace	8
Doors	4
Appliances	3
Rebates	3
Thermostat	2
Fireplace	1

5.3.1.4 Satisfaction

In general, respondents were satisfied with the program overall, the amount of rebate they received, and the program participation process (Figure 5-12). Seven respondents expressed some level of dissatisfaction with the program. Reasons for dissatisfaction included it took too long to receive the rebate (n=2), high utility bill (n=2), lack of transparency regarding program requirements (n=1), cumbersome application process (n=1), and low rebate amount (n=1).

Figure 5-12: Program Satisfaction (n varies)



Two-thirds of respondents indicated that participation in the program increased their satisfaction with Cascade (66.3%, n=330). More than three-quarters of respondents indicated they were likely to recommend the rebate program to others (77.1%, n=384).

5.3.1.5 Demographics

Table 5-10 describes the demographics of survey respondents.

Table 5-10: Demographics (n=498, unless otherwise indicated)

Answer	%	Count
Homeownership		
Own	96.8%	482
Rent	0.6%	3
Own and rent to someone else	1.6%	8
Prefer not to answer	1.0%	5
Home Type		
Single-family home	94.2%	469
Manufactured or mobile home	1.8%	9
Duplex or townhome	2.0%	10
Apartment or condominium	1.2%	6
Bed-n-Breakfast	0.4%	2
Prefer not to answer	0.6%	3
Building Age		

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

Before 1960	30.3%	151
1960 to 1979	16.7%	83
1980 to 1989	10.8%	54
1990 to 1999	14.9%	74
2000 to 2009	19.5%	97
2010 or later	6.6%	33
Don't know	0.4%	2
Prefer not to answer	0.8%	4
Heating Fuel Type		
Natural gas	88.8%	442
Electricity	10.2%	51
Propane	0.0%	0
No heat	0.0%	0
Don't know	0.4%	2
Prefer not to answer	0.6%	3
Household Size (n=1277)		
1 person	14.3%	182
2 people	50.0%	638
3 people	14.6%	186
4 people	12.4%	158
5 people	4.6%	59
6 people	1.0%	13
7 people	0.3%	4
8 or more people	0.3%	4
Prefer not to answer	2.6%	33
Age (n=497)		
18 to 24	0.2%	1
25 to 34	6.4%	32
35 to 44	17.1%	85
45 to 54	11.9%	59
55 to 64	17.9%	89
65 to 75	27.2%	135
75 or older	13.1%	65
Prefer not to answer	6.2%	31
Household income		
Less than \$10,000	0.2%	1
\$10,000 to \$19,999	0.8%	4
\$20,000 to \$29,999	3.4%	17
\$30,000 to \$39,999	3.0%	15
\$40,000 to \$49,999	3.4%	17
\$50,000 to \$74,999	12.1%	60
\$75,000 to \$99,999	15.7%	78
\$100,000 to \$ 149,999	18.5%	92
\$150,000 to \$199,999	10.2%	51
\$200,000 or more	6.8%	34
Education		

High school graduate/GED	7.2%	36
Associates degree, vocational/technical school, or some college	20.7%	103
Four-year college degree	32.1%	160
Graduate or professional degree	31.3%	156
Prefer not to answer	8.6%	43

5.4 NEW HOMES

5.4.1 Builder Interviews

The Evaluator conducted phone interviews with representatives from new home construction companies who participated in the New Homes program. Representatives from 37 companies were contacted up to four times via email and phone. Three representatives agreed to participate in an interview. Five of the remaining representatives directly declined an interview for a variety of reasons: unfamiliar with program (n=2), no longer builds homes in Cascade service area (n=1), no longer builds qualifying homes due to enhanced energy codes (n=1), and not interested in being interviewed (n=1).

Due to the low response rate, the Evaluator cautions drawing overarching conclusions from these responses.

5.4.1.1 Program Tenure and Opinions of Energy Efficient Construction

Two of the respondents own the new home construction company that has participated in the program and the remaining respondent worked in the company’s accounting and sales department (n=1). All three respondents said that their companies specialize in single-family new construction; one company focuses specifically on custom homes and another company also works in the multi-family construction industry. All three respondents noted that their companies have engaged in Cascade’s New Homes program for multiple years. They initially learned about the program their own research (n=1) and Cascade outreach (n=2) and all three respondents were financially motivated to participate in the program.

All three respondents indicated their companies promote energy efficient equipment and construction practices. In general, this push for efficiency is influenced by state codes and regulations (n=3), planning departments (n=1), and customer preferences (n=1). When promoting energy efficiency to customers, one respondent noted they emphasize the low-maintenance costs and return on investment.

5.4.1.2 Market Conditions and Energy Codes

Respondents commented on a variety of market factors impacting their participation in the New Homes program and home construction more generally. Two respondents noted that rising housing prices and persistent supply chain issues have changed the housing market, resulting in lower demand for single-family and custom homes.

All three interviewees expressed dissatisfaction with Washington’s new energy codes (Table 5-11). Specifically, respondents were frustrated with the preference for electricity over gas (n=3) as well as more expensive equipment costs (n=2). Additionally, respondents noted that the codes have limited their participation in Cascade’s New Homes program, explaining that they struggle to build homes that

exceed code and therefore qualify for incentives (n=2). Moreover, all the respondents noted that their customers have complained about the new energy code requirements (n=3), explaining that their customers have a strong preference for gas furnaces (n=2), gas cooking equipment (n=2), and gas water heaters (n=1).

Table 5-11: Perceptions of Energy Codes

Complaint	Quote
Top-down approach	"I disagree with a lot of their policies, I'm all for energy conservation, but disagree with how the state is going about it...it is a very top-down approach" –Builder
Preference for electricity	"Feels like energy codes are pushing us towards solar, but the systems (Electric) are not there yet and doesn't make sense from a return standpoint." –Builder
Expensive	Cost, it comes into cost, having natural gas has been very convenient." –Builder
Customer dissatisfaction	"[Codes] make [building] much more expensive and the [codes] want to eliminate gas which a lot of people are against." –Builder

5.4.1.3 Point-of-Sale New Construction and Home Certification Rebates

Respondents had mixed reactions to the idea of point-of-sale (POS) new construction rebates. Two respondents expressed a hesitancy in regard to POS rebates, citing administrative challenges (n=1) and distrust with suppliers (n=1). The remaining respondent was interested in POS rebates and their potential for instant-rebate-payment opportunities.

None of the respondents were familiar with home certifications rebates, but are interested in learning more about that opportunity.

5.4.1.4 Program Participation and Satisfaction

In general, respondents were satisfied with all aspects of the program. Respondents agreed that the application process was easy (n=3), the range of measures offered was satisfactory (n=3), and they received rebates in a timely fashion (n=2). Respondents cited slow payback periods (n=2) and strict program requirements due to energy codes (n=2) as the largest barriers to program participation. Moving forward, respondents recommended Cascade increase program communications (n=1) and training opportunities (n=1).

5.5 LOW INCOME

5.5.1 CAP Agency Representative Interviews

The Evaluator conducted phone interviews with representatives from participating CAP agencies. Representatives from 17 agencies were contacted up to four times via email and phone. Five agency representatives from Washington (n=4) and Oregon (n=1) responded to interview requests.

5.5.1.1 Background and Program Tenure

The five responding representatives act as their agency's weatherization program manager or coordinator. Three of the four Washington based agency representatives explained that their agency has partnered with Cascade for many years. The remaining Washington agency respondent noted that they were new to this position and therefore unsure of the tenure of the partnership, while the Oregon agency representative explained that their agency had previously partnered with Cascade and are in the process of re-establishing their partnership for 2024.

5.5.1.2 Funding

All five respondents indicated that their CAP agencies receive weatherization funds from several sources outside of Cascade, including other local utilities, state programs, and federal agencies. Respondents explained that the CAP agencies pool their funding sources together in order to complete projects in their communities. When using pooled funds, respondents noted that utility specific funds must be used for those utility's customers; for example, Cascade funds are only used for Cascade natural gas customers or customers who are switching from electricity to Cascade provided natural gas.

The responding representatives cited different processes for health and safety related upgrades in their projects. While three agencies did not differentiate between health and safety and non-health safety related measures in their overall budget, one agency has separate funds specifically ear-marked for health and safety related upgrades. Moreover, the four Washington based agency representatives noted that Cascade pays for a percentage of total health and safety related repair costs, while the Oregon based representative explained that the agency applies for state funding for these types of upgrades. As the Oregon agency reestablishes its partnership with Cascade, it will navigate how to best incorporate Cascade funds into its budget.

5.5.1.3 Process to Complete a Project

All five responding agencies follow a similar project process. Following application approval, the agency sends an auditor to the home to conduct a full home energy audit, including blower door testing, combustion testing, and insulation, duct sealing, and appliance inspections. Two of the agencies explained that prior to home energy audit, an inspector will conduct an initial home-walkthrough to ensure the home meets basic qualifications. Respondents noted that homes can be disqualified from the program if they are in need of major repairs, such as a new roof, or if the home is unsafe for contractors to work in, such as the presence of asbestos. In these cases, one agency representative explained they refer the homeowner to additional funding sources, like USDA sponsored low-interest loans, so that they can complete the needed home repairs and reapply for the program. Following the home energy audit, the auditor drafts a statement of work for the contractors. The above process applies to homes inhabited by owners or tenants. In the case of tenant-based dwellings, agency representatives often work directly with the landlord, who must agree to not raise the rent, evict tenants, or sell the property until at least one-year after project completion. One agency representative noted that their agency requires the property owner's of multi-family buildings to cover 10% of the project cost.

Three of the five responding agency representatives noted that their agency sends internal quality control staff to the properties to inspect the work before submitting final paperwork and documentation to Cascade. The remaining respondents could not speak to quality-control inspections.

5.5.1.4 Customer Barriers and Refusals

Interviewed representatives noted that the biggest barriers their customers face in regard to program eligibility include their home needs repairs outside the scope of the program (n=3), they are above the income eligibility cap (n=1), and there is asbestos in their home (n=1).

Although uncommon, respondents noted that customers sometimes refuse certain measures like wall insulation (n=2) and appliance upgrades (n=1) due to aesthetic related concerns.

5.5.1.5 Contractors

All of the responding agencies representatives explained that their agency partners with third party contractors for project completion; four agencies use external contractors for all of the project work, while one agency uses external contractors for specific electrical services. The agencies recruit external contractors through rolling enrollment (n=4) or a biannual RFP (n=1). Respondents noted difficulties in contractor recruitment, citing the program’s strict rules, insurance and licensing requirements, and a general labor shortage.

5.5.1.6 Program Marketing and Communication with Cascade

The level of communication between each agency and Cascade ranges from monthly check-ins to ad hoc emails and phone calls, however all responding representatives were pleased with their communication with Cascade.

In general, responding agencies generate project leads on their own via print advertising (n=4), word-of-mouth (n=3), and other energy assistance program referrals (n=3). Two agency representatives noted they occasionally received project leads directly from Cascade representatives. Additionally, two agency representatives noted long wait-lists and explained the program does not require intense marketing campaigns.

5.5.1.7 Program Satisfaction and Recommendations

CAP agency representatives are generally satisfied with their partnership with Cascade, praising Cascade for their generous administrative spending funds (n=2), additional repair funds (n=1), and communicativeness (n=1). Interview respondents identified various challenges they face while administering the weatherization program (Table 5-12). Respondents suggested potential solutions to some of these barriers including contractor incentives to increase contractor engagement (n=2) and targeted outreach campaigns on tribal lands to increase tribal community engagement (n=1).

Table 5-12 Program Challenges

	n
Contractor (labor) shortages	1
Lack of capacity for major repairs	1
Inflation (labor and material costs)	1
Issues with Cascade contract language around record-keeping requirements	1
Online portal glitches & error messages	1
Washington state moving away from natural gas	1
Reaching/serving tribal populations	1

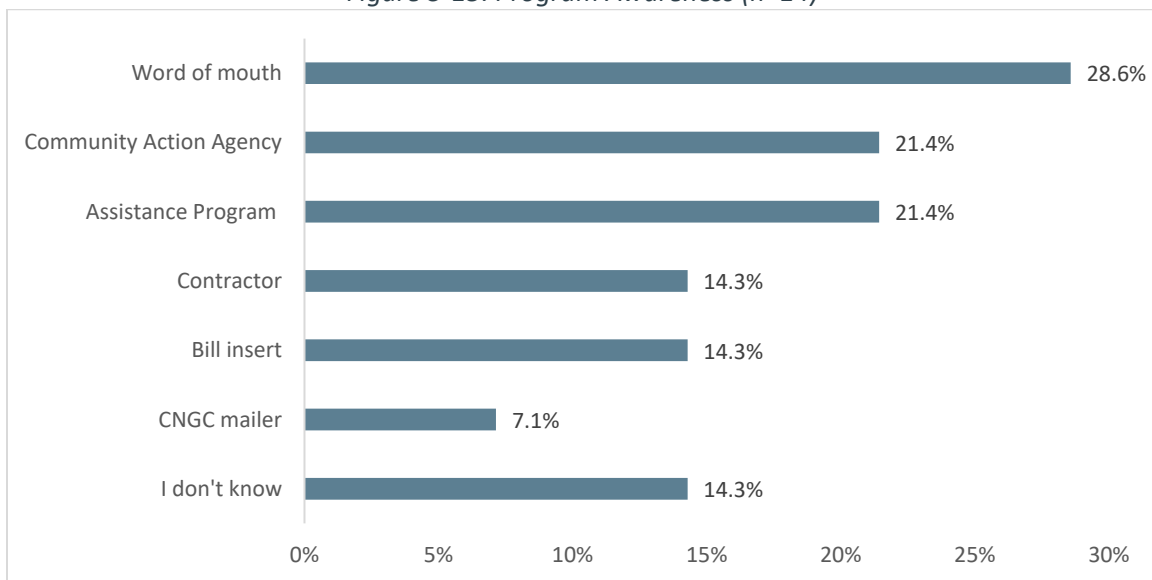
5.5.2 Low Income – Participant Survey

Evaluator conducted a survey of Cascade low-income residential program participants from 2021-2023 to gather feedback about customers’ engagement with and experience of the program. Participants were contacted via phone three times and asked to complete a survey. In total, fourteen of the 82 program participants completed a survey.

5.5.2.1 Program Awareness & Motivation to Participate

Word of mouth, Community Action Agencies, and assistance programs were the most common sources of program awareness. Respondents learned about the program through a variety of avenues, most commonly through word of mouth (28.6%, n=4) (Figure 5-13).

Figure 5-13: Program Awareness (n=14)



Automatic enrollment and a desire to save money on energy bills were the most common motivations for participating in the program. Just under a quarter of respondents were automatically enrolled in the program (21.4%, n=3). Across the remaining respondents (n=11), saving money on energy bills was the most popular reason for enrolling in the program (54.5%, n=6) (Figure 5-14).

More than one-quarter of respondents relied on information from Cascade when thinking about installing the equipment provided by the program (28.6%, n=4) (Figure 5-15).

Figure 5-14: Motivation to Participate (n=11)

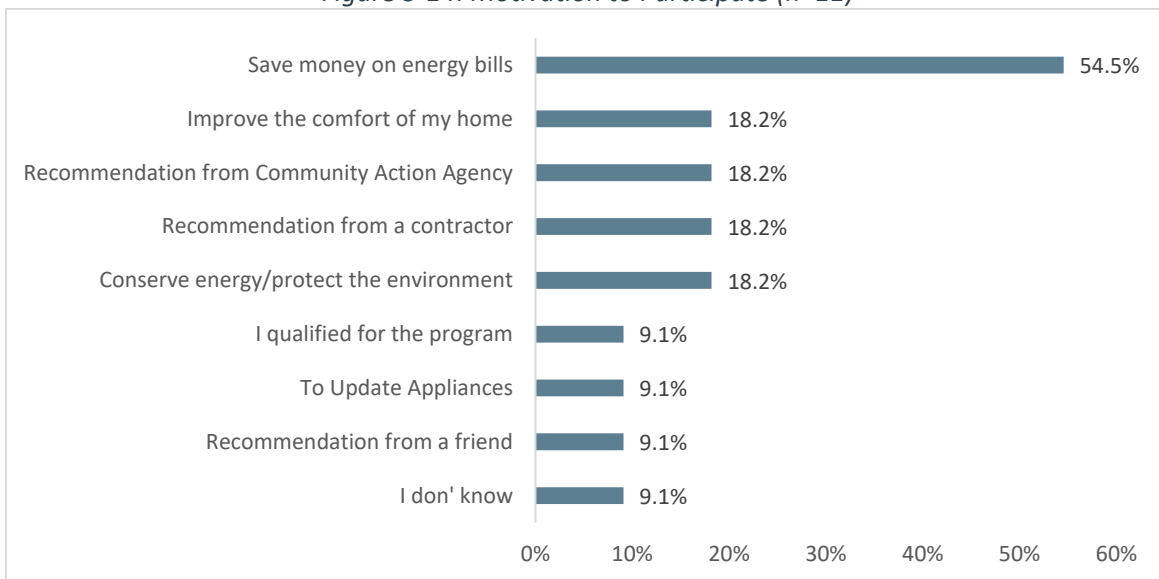
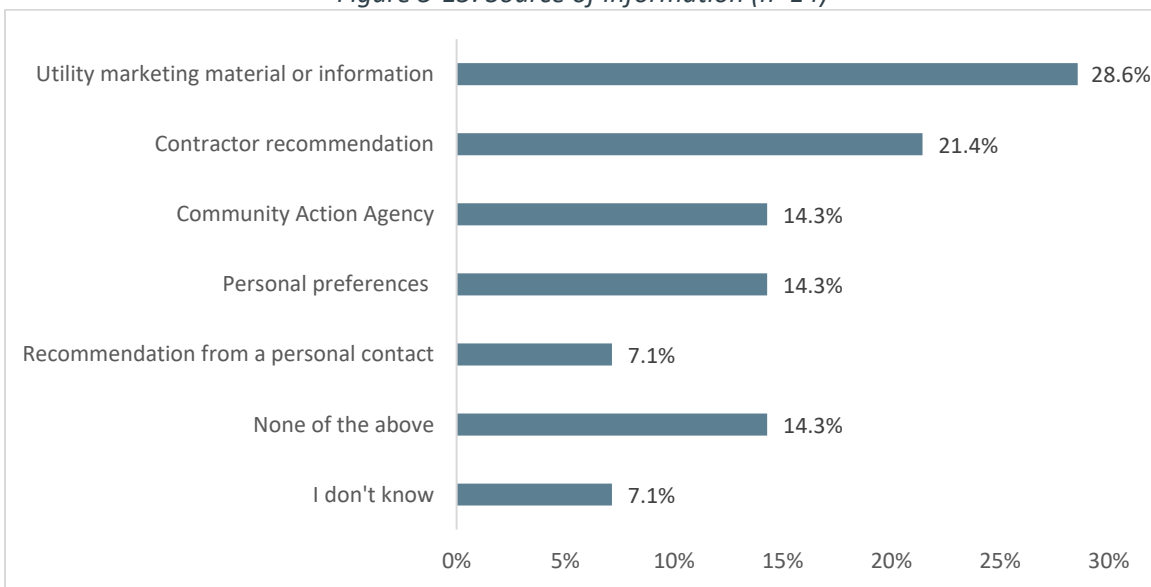
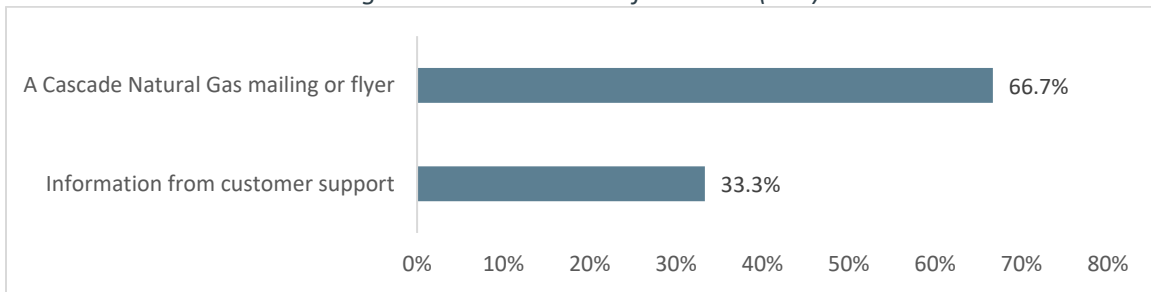


Figure 5-15: Source of Information (n=14)



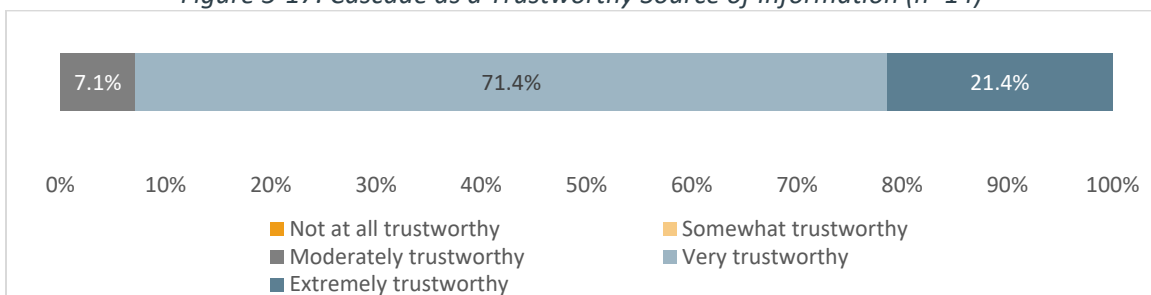
Although few respondents viewed Cascade marketing materials before participating, those who did considered the materials to be influential. Three participants (21.4%) reviewed Cascade marketing and advertising material before participating in the program. Two of these respondents reviewed Cascade mailers or flyers (66.7%, n=2) and one spoke with a program representative (33.3%, n=1). Each of these respondents indicated the information they received influenced their decision to participate. (Figure 5-16).

Figure 5-16: Reviewed Information (n=3)



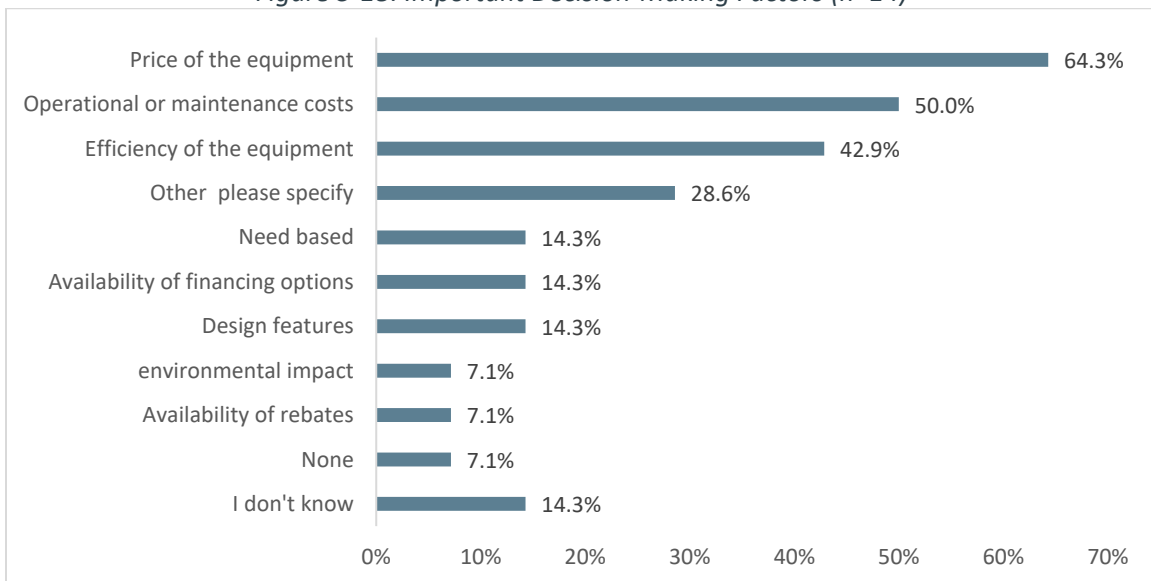
Moreover, Cascade was considered to be a very or extremely trustworthy source of information regarding saving energy (92.9%, n=13) (Figure 5-5).

Figure 5-17: Cascade as a Trustworthy Source of Information (n=14)



Many factors are important considerations when making efficiency improvements, but equipment price and operational or maintenance costs were most important. Many respondents consider the price of the equipment (64.3%, n=9) and associated operational/maintenance costs (50.0%, n=7) when deciding to make energy efficiency upgrades (Figure 5-3).

Figure 5-18: Important Decision-Making Factors (n=14)



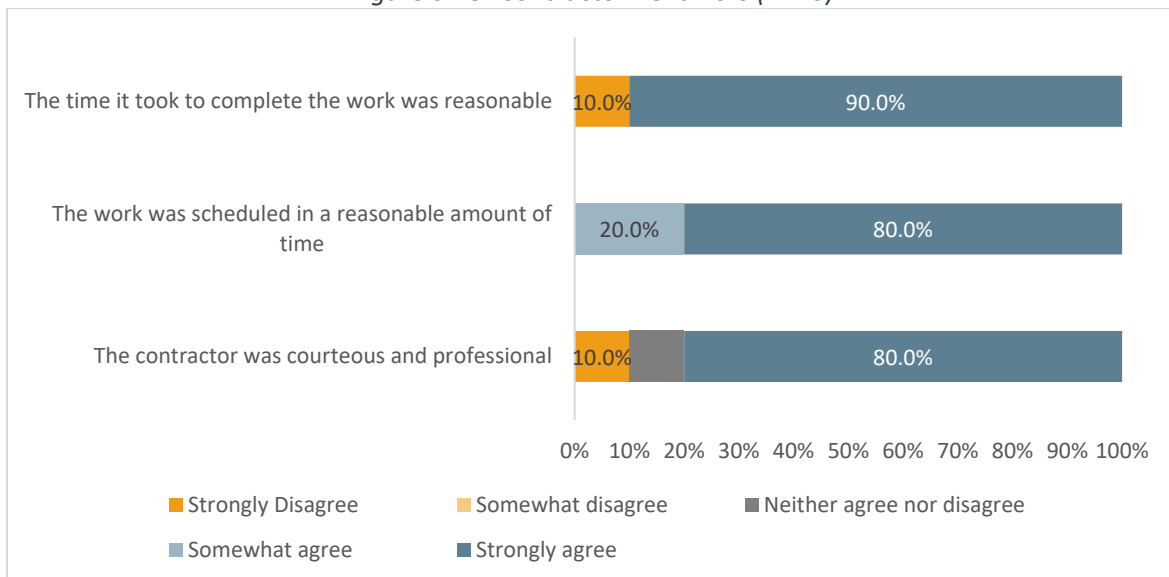
5.5.2.2 Program Participation

All respondents considered the application clear and relatively easy to complete. Half of the respondents completed the rebate application themselves (50.0%, n=7) and about seventy percent of these respondents found the application to be very clear (71.4%, n=5). Respondents were most motivated to make energy-efficient improvements to improve the health and safety of the home (50.0%, n=7). And increase the comfort of the home (42.9%, n=6).

5.5.2.3 Project Implementation

Most participants held favorable views of the installation contractors. In general, respondents believed their contractor scheduled and completed the work in a reasonable amount of time and was courteous and professional (Figure 5-11). Among the two respondents who expressed some dissatisfaction with their contractor, reasons for dissatisfaction included the contractor left a mess (n=1) and that the work was not initially completed (n=1).

Figure 5-19: Contractor Behaviors (n=10)

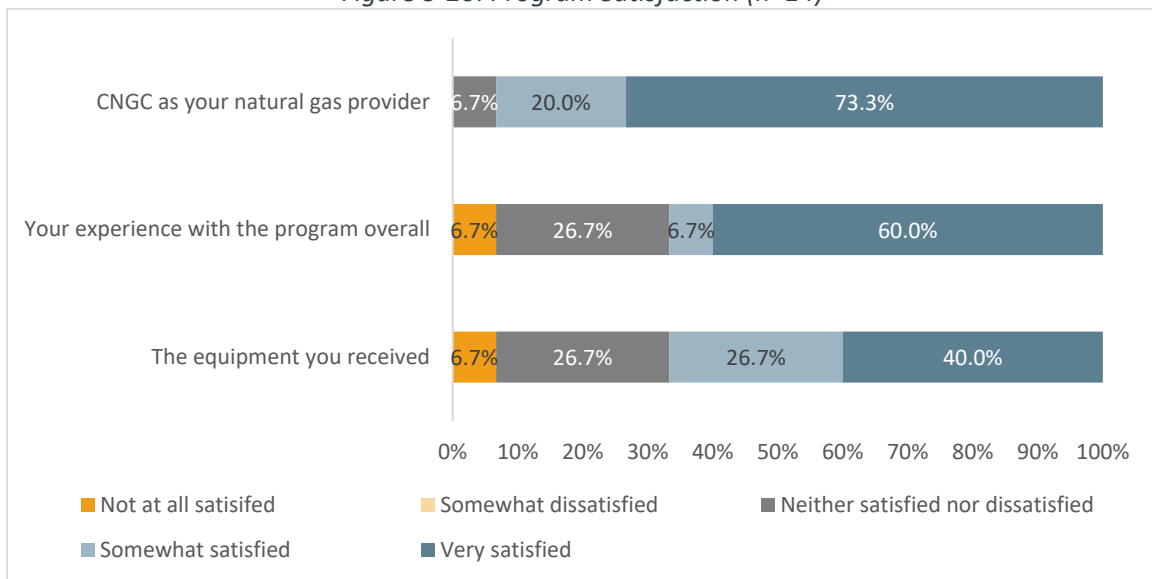


Half of respondents indicated that their contractors identified other energy saving opportunities for their homes (50.0%, n=5). Specific recommendations included water heater upgrades (n=1) and lighting upgrades (n=1).

5.5.2.4 Satisfaction

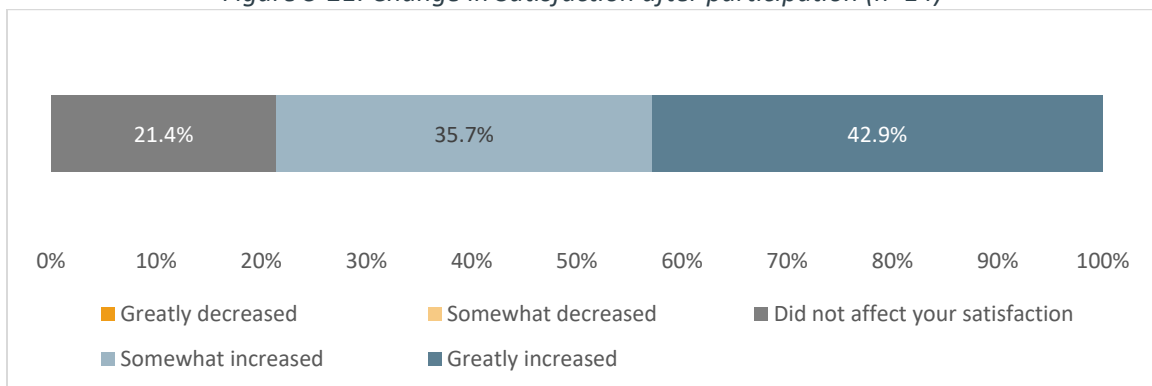
Nearly all participants were satisfied with the program. In general, respondents were satisfied with Cascade as a natural gas provider, the program overall, the amount of rebate they received, and other aspects of the program (Figure 5-12). All respondents indicated they were likely to recommend the program to others.

Figure 5-20: Program Satisfaction (n=14)



More than three-quarters of respondents indicated that participation in the program increased their satisfaction with Cascade (78.6%, n=11) and none reported that it decreased it (Figure 5-21).

Figure 5-21: Change in Satisfaction after participation (n=14)



5.5.2.5 Demographics

Table 5-10 describes the demographics of survey respondents.

Table 5-13: Demographics (n=14)

Answer	%	Count
Homeownership		
Own	92.9%	13
Rent	7.1%	1
Building Type		
Single-family home	92.9%	13
Manufactured or mobile home	7.1%	1

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

Building Age		
Before 1960	50.0%	7
1960 to 1979	42.9%	6
1980 to 1989	0.0%	0
1990 to 1999	7.1%	1
Building Size		
Less than 1,000 square feet	14.3%	2
1,000 to 1,999 square feet	28.6%	4
2,000 to 2,999 square feet	0.0%	0
3,000 to 3,999 square feet	14.3%	2
4,000 square feet or more	14.3%	2
I don't know	28.6%	4
Heating Fuel		
Natural gas	100.0%	14
Respondent Age		
8 - 24	0.0%	0
25 - 34	14.3%	2
35 - 44	7.1%	1
45 - 54	7.1%	1
55 - 64	14.3%	2
65 - 74	28.6%	4
75+	28.6%	4
Race and Ethnicity		
American Indian or Alaska Native	0.0%	0
Asian	7.1%	1
Hispanic, Latino, or Spanish origin	14.3%	2
White or Caucasian	78.6%	11
Education		
High school graduate/GED	28.6%	4
Associates degree, vocational/technical school, or some college	21.4%	3
Four-year college degree	14.3%	2
Graduate or professional degree	35.7%	5
Household Income		
Less than \$10,000	28.6%	4
\$10,000 to less than \$20,000	35.7%	5
\$20,000 to less than \$30,000	14.3%	2
\$30,000 to less than \$40,000	0.0%	0
\$40,000 to less than \$50,000	7.1%	1
\$50,000 to less than \$75,000	0.0%	0
\$75,000 to less than \$100,000	7.1%	1
\$100,000 to less than \$150,000	0.0%	0
\$150,000 to less than \$200,000	0.0%	0

\$200,000 or more	0.0%	0
Prefer not to answer	7.1%	1

5.6 RESIDENTIAL PROGRAM NON-PARTICIPANTS

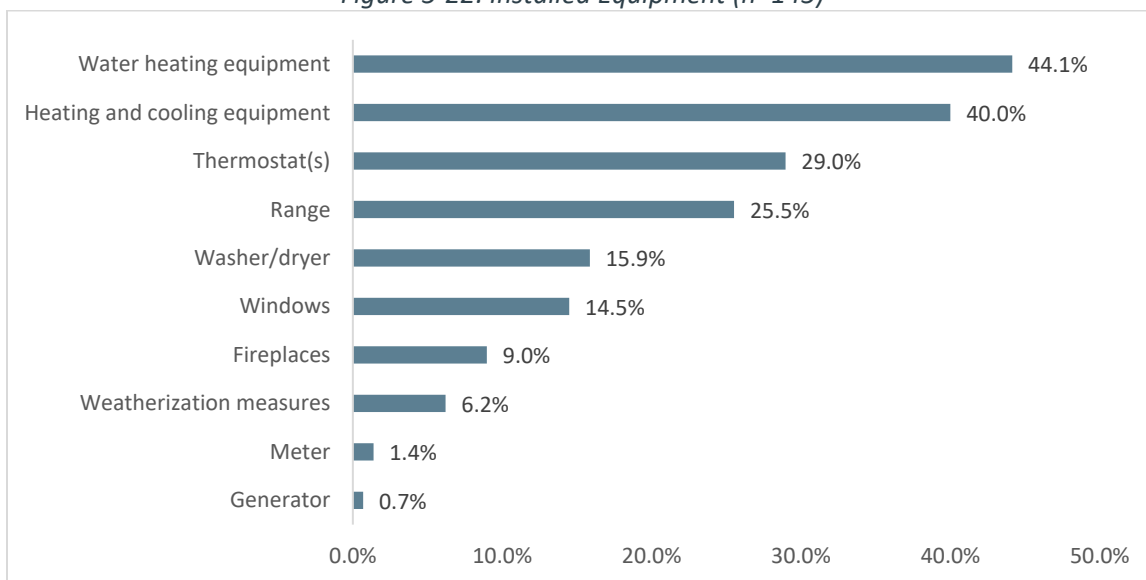
5.6.1 Non-Participant Survey

The Evaluator conducted a survey of customers who did not participate in Cascade’s residential programs to gather feedback on customer knowledge of Cascade’s offerings, as well as their energy saving behaviors. Cascade provided Evaluator with a list of 5,000 randomly selected residential customers who did not participate in a residential rebate program since 2021. Of these contacts, 2,484 customers had valid email addresses. Customers were contacted via email three times and invited to complete the survey and 409 completed the survey.

5.6.1.1 Program Awareness and Engagement

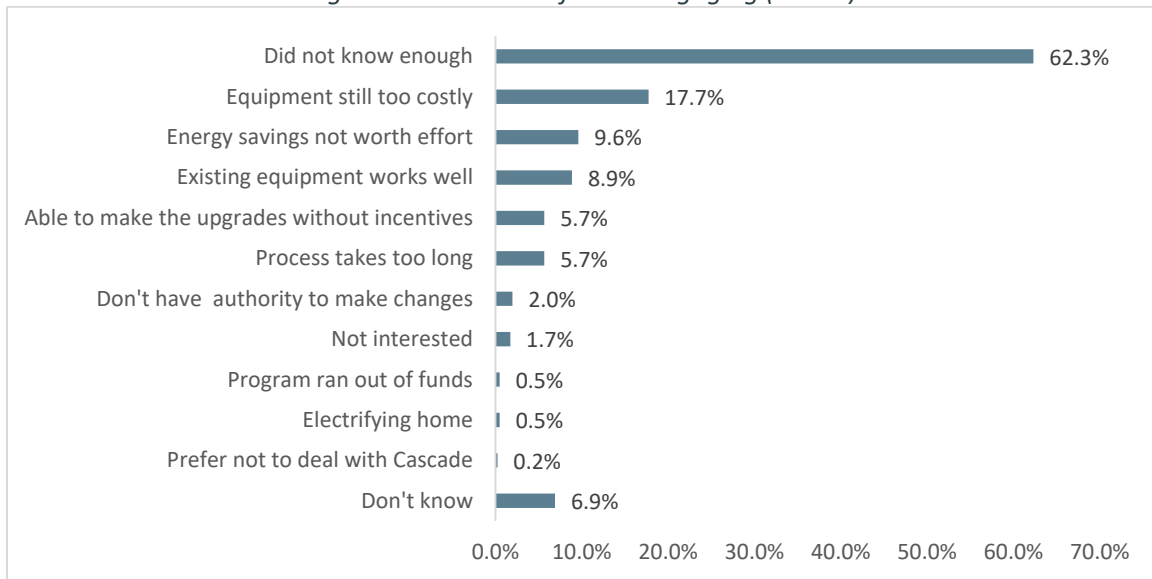
Just over one-third of respondents replaced or installed natural gas fueled equipment in the past three years (36.2%, n=145). Water heating equipment (44.1%, n=64) and HVAC equipment (40.0%, n=58) were the most popular installations (Figure 5-22). Three of these respondents indicated they received an incentive from Cascade for their purchase and were disqualified from completing the rest of the survey.

Figure 5-22: Installed Equipment (n=145)



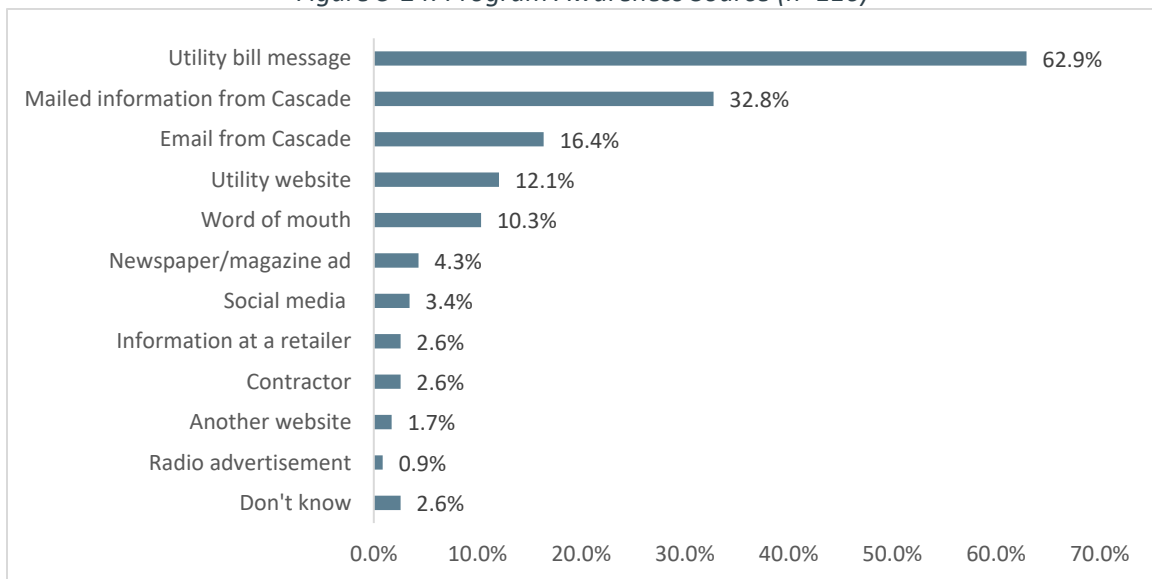
More than half of respondents indicated they did not participate in the program because they did not know enough about what the programs offered (62.3%, n=253). Other reasons for not engaging included high equipment costs despite incentives (17.7%, n=72), believing the energy savings were not worth the hassle (9.6%, n=39), and their existing equipment still worked (8.9%, n=36), among others (Figure 5-23).

Figure 5-23: Reasons for not engaging (n=406)



Almost three-quarters of the respondents did not know Cascade offered rebates for energy efficient equipment installations (71.3%, n=288). Among the 116 respondents who were aware of Cascade’s programs, more than half of them had learned about the programs through a utility bill message (62.9%, n=73) (Figure 5-24). More respondents were familiar with equipment replacement rebates (70.7%, n=82) than new construction rebates (12.9%, n=15); 56.0% (n=65) knew about heating and cooling equipment rebates.

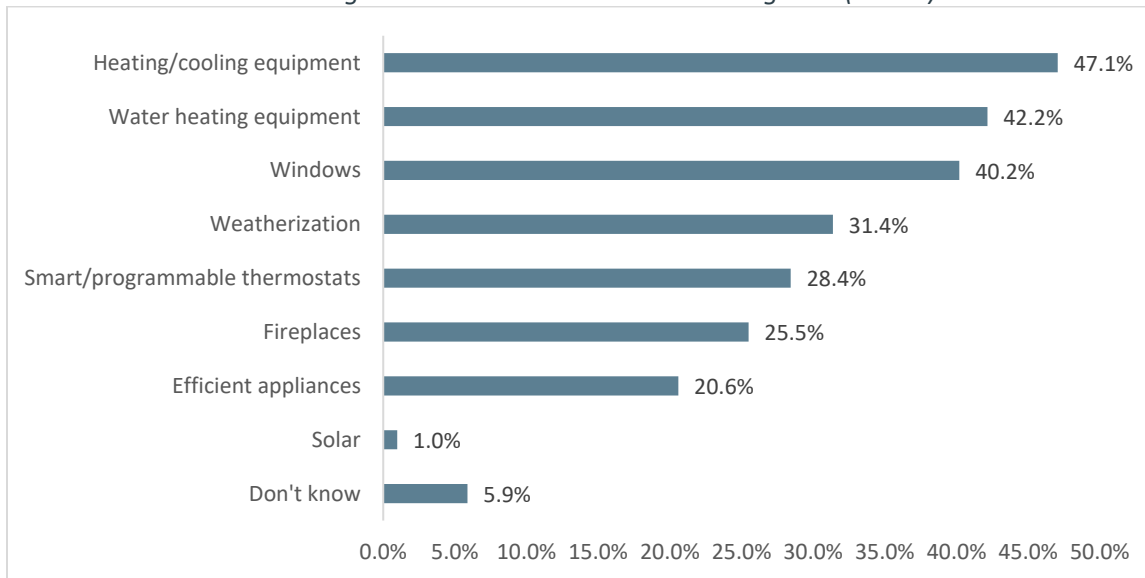
Figure 5-24: Program Awareness Source (n=116)



One quarter of respondents were interested in making energy efficient updates and participating in Cascade’s energy efficiency programs (25.6%, n=102). These respondents were most interested in heating and cooling equipment (47.1%, n=48), water heater rebates (42.2%, n=43), and window rebates (40.2%, n=41) (

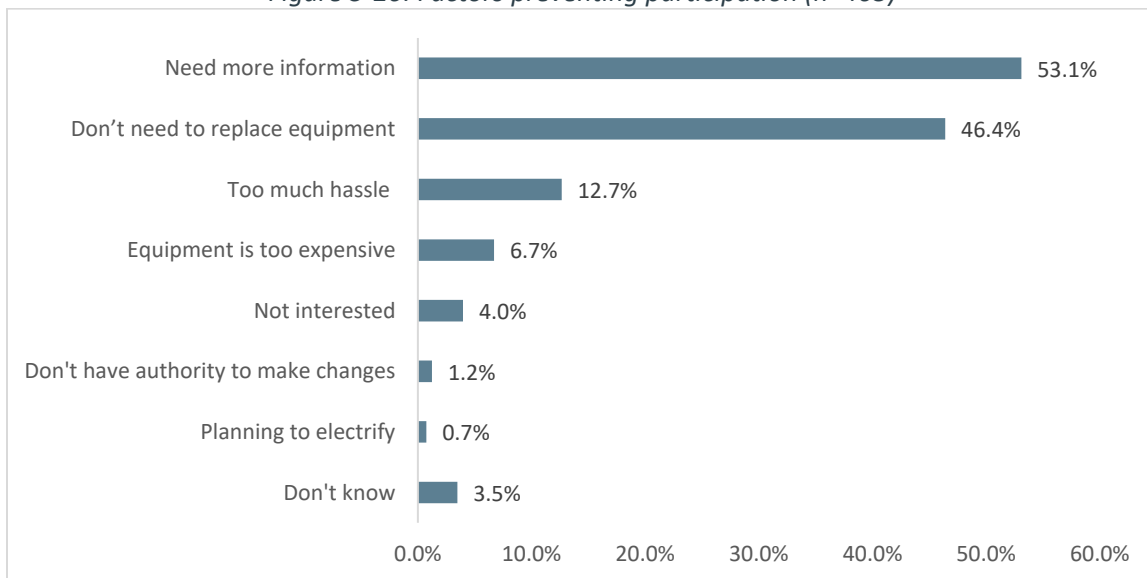
Figure 5-25). Just under half of all the respondents were not sure if they were interested in any of Cascade’s residential rebates (45.1%, n=180).

Figure 5-25: Interest in Cascade’s Programs (n=102)



Respondents cited a lack of information about the programs and not needing to replace equipment as the main reasons they have not engaged in the programs (Figure 5-26). Most respondents (96.8%, n=390) had some authority to make improvements to their building.

Figure 5-26: Factors preventing participation (n=403)



5.6.1.2 Suggestions for Improvement

Enhanced outreach was the most common way non-participants thought that the program could be improved. Eighty-four respondents provided suggestions for how Cascade might improve their programming moving forward. Almost half of these respondents requested more program outreach and information about the programs (45.2%, n=38). One-third of respondents also suggested higher

incentives (32.1%, n=27), indicating that equipment is too costly even with the current rebates; some of the respondents recommended special programs for senior citizens and military veterans.

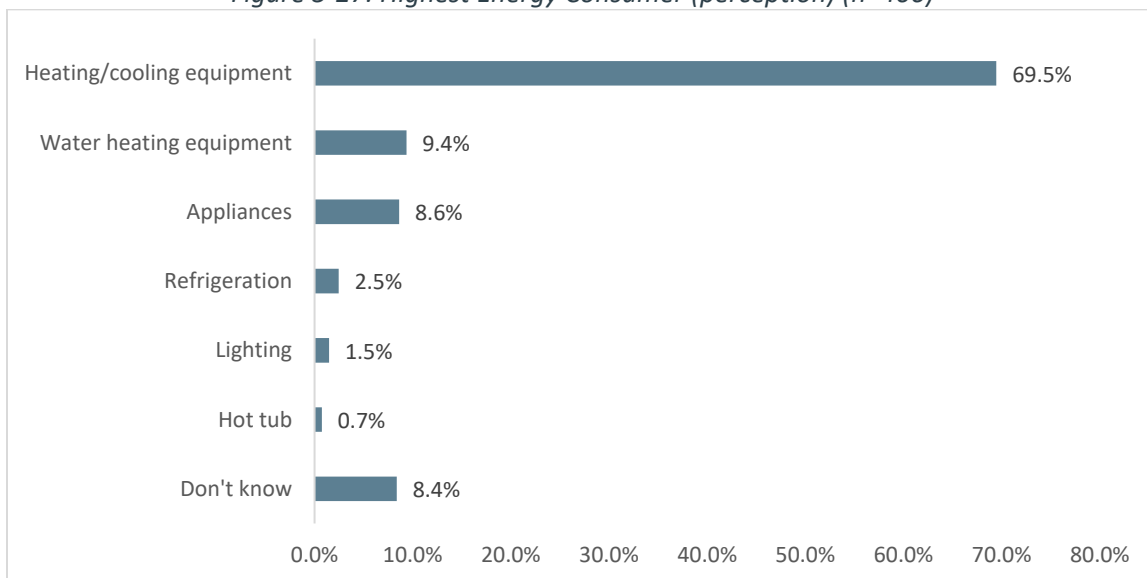
Table 5-14: Suggestion (n=84)

	%	n
Enhanced outreach with more information	45.2%	38
Higher incentives	32.1%	27
Local presence	7.1%	6
Stop the gas bans	4.8%	4
Reduce gas rates	4.8%	4
Provide contracts for better contractors	3.6%	3
Home energy audit offering	1.2%	1
Zero interest payment plans	1.2%	1

5.6.1.3 Home Equipment

Customers’ understanding of what equipment uses the most energy in their home generally aligned with how homes use energy. More than two-thirds of respondents indicated that their heating and cooling equipment were their homes’ biggest energy consumers (69.5%, n=282) (Figure 5-27).

Figure 5-27: Highest Energy Consumer (perception) (n=406)



Just over eight percent of respondents use gas to fuel their home (84.0%, n=341) and two-thirds of all respondents heated their home with gas furnaces (66.3%, n=267). Characteristics of the heating systems are:

- About one-third of respondents’ heating systems were less than 10 years old (34.1%, n=134) and 39.4% (n=155) of heating systems were 10-20 years old.
- Almost three-quarters if respondents (71.7%, n=289) serviced their heating system in the last three years.

- Most respondents use either a programmable thermostat (n=241) or smart (n=75) thermostat (total: 78.4%, n=316).

5.6.1.4 Demographics

Table 5-15 demonstrates respondents’ demographic characteristics (Table 5-15). Figure 5-28 and Figure 5-29 present a comparison of the home and demographic characteristics of non-participants and customers that participated in the Existing Homes Program. As shown, non-participants have similar home characteristics and demographic characteristics, with the exception that Existing Homes participants tended to be more highly educated and somewhat more affluent than the population of non-participants.

Table 5-15: Demographics (n varies)

Answer	%	Count
Home ownership Status (n=403)		
Own	96.0%	387
Rent	2.0%	8
Own and rent to someone else	0.3%	1
Don't know	0.0%	0
Prefer not to answer	1.7%	7
Building age (n=388)		
Before 1950	16.8%	65
1950 to 1959	6.7%	26
1960 to 1969	6.2%	24
1970 to 1979	12.6%	49
1980 to 1989	7.2%	28
1990 to 1999	18.0%	70
2000 to 2009	26.0%	101
2010 to 2019	2.8%	11
2020 to Present	0.8%	3
Don't know	2.3%	9
Building type (n=405)		
Single-family house detached	90.1%	365
Single-family house attached to one or more other houses (e.g., duplex, condominium, townhouse, etc.)	6.4%	26
Mobile or manufactured home	1.5%	6
Apartment with 2 to 4 units	0.3%	1
Apartment with 5+ units	0.3%	1
Other	1.0%	4
Don't know	0.3%	1
Household Size (n=403)		
1 person	20.8%	84
2 people	51.4%	207
3 people	12.2%	49

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

4 people	8.2%	33
5 people	3.5%	14
6 people	0.7%	3
7 people	0.7%	3
8 or more people	0.0%	0
Prefer not to answer	2.5%	10
Age (n=401)		
18 to 24	0.0%	0
25 to 34	0.0%	0
35 to 44	4.5%	18
45 to 54	13.0%	52
55 to 64	19.0%	76
65 to 75	36.4%	146
75 or older	22.0%	88
Prefer not to answer	5.2%	21
Household Income (n=403)		
Less than \$10,000	0.7%	3
\$10,000 to \$19,999	1.0%	4
\$20,000 to \$29,999	5.0%	20
\$30,000 to \$39,999	4.2%	17
\$40,000 to \$49,999	5.7%	23
\$50,000 to \$74,999	12.2%	49
\$75,000 to \$99,999	11.2%	45
\$100,000 to \$149,999	15.1%	61
\$150,000 to \$199,999	7.2%	29
\$200,000 or more	6.2%	25
Prefer not to answer	31.5%	127
Education (n=396)		
Did not graduate high school	1.5%	6
High school graduate	11.6%	46
Associate's degree, vocation/ technical school, or some college	31.3%	124
Four-year college degree	25.5%	101
Graduate or professional degree	21.5%	85
Prefer not to answer	8.6%	34

Figure 5-28 Comparison of Non-Participant and Existing Homes Participant Home Characteristics

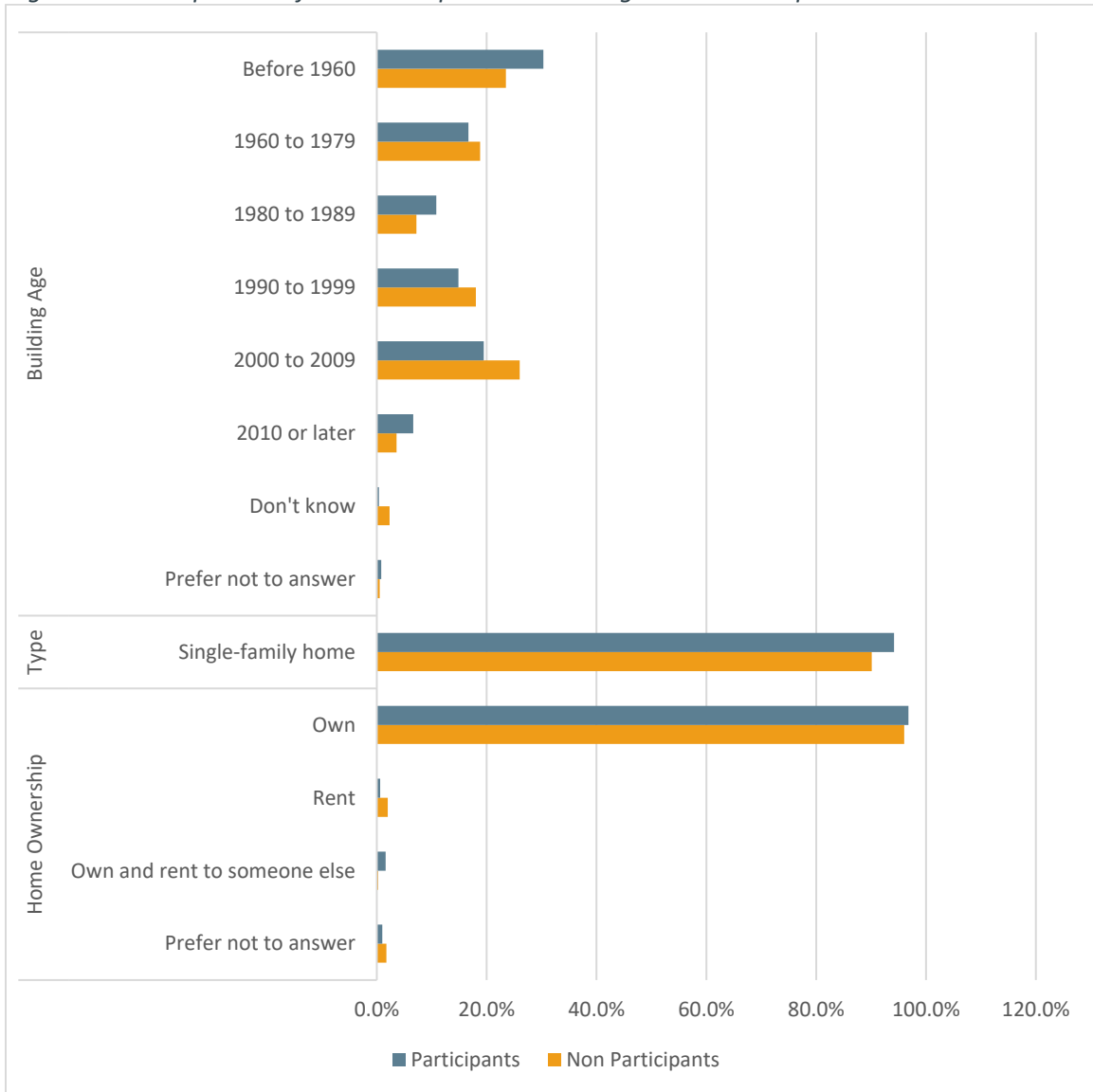
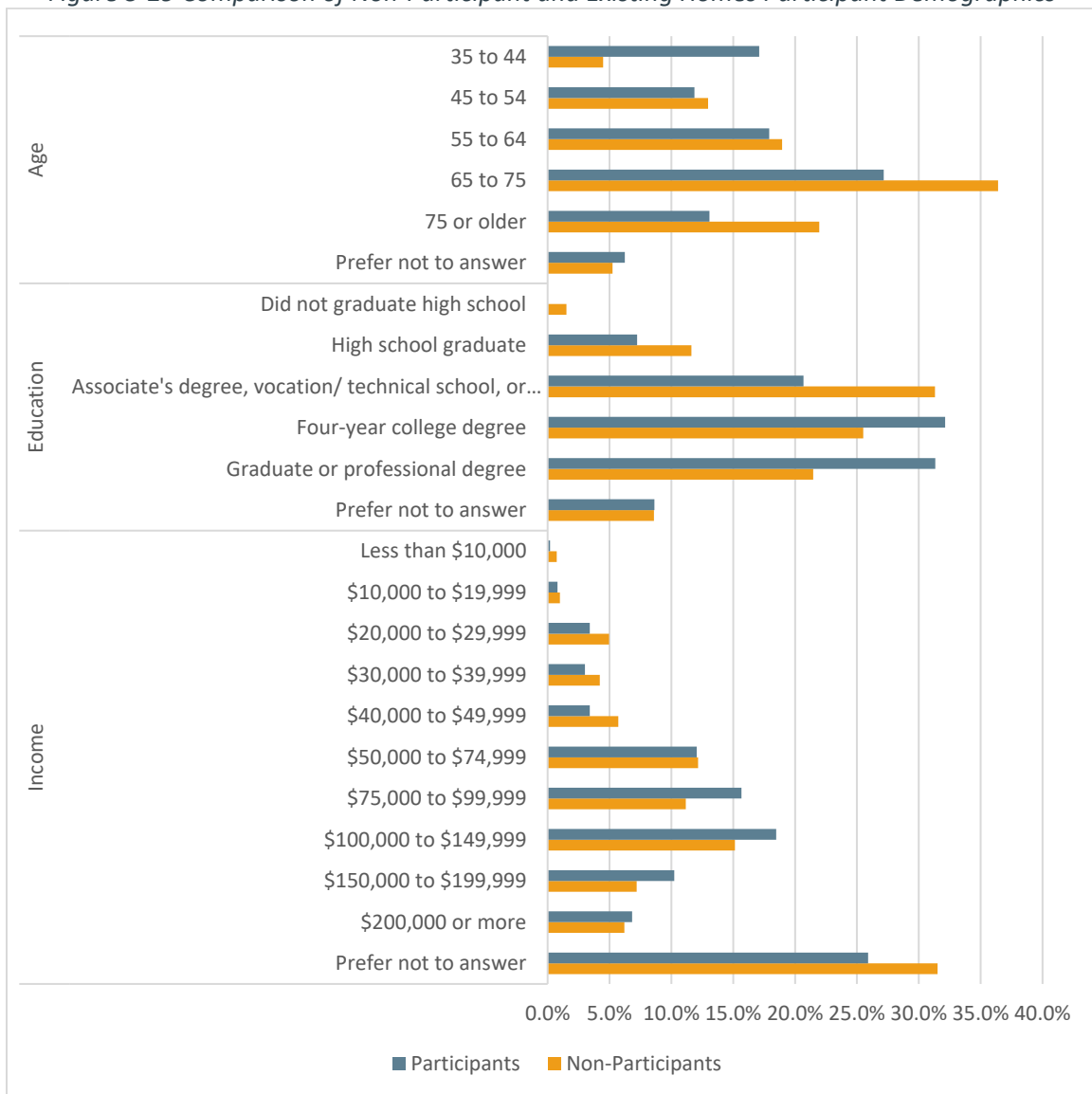


Figure 5-29 Comparison of Non-Participant and Existing Homes Participant Demographics



5.7 RESIDENTIAL PROGRAMS CONCLUSIONS AND RECOMMENDATIONS

5.7.1 Communication and Awareness

Based on the evaluation findings, it is evident that different channels and sources play a role in program awareness across various customer groups. This finding highlights the importance of a diversified marketing approach that includes contractors, direct marketing, community engagement, and leveraging multiple communication channels to maximize program awareness and participation across different customer segments.

For Existing Homes participants, contractors are the primary drivers of program awareness, with nearly half (49.2%) of respondents citing their contractors as their initial source of information. This

underscores the value of the network of trade ally's that Cascade has developed to assist customers with program-related services.

In addition to contractors, Cascade's marketing efforts also contribute significantly to awareness of the Existing Homes Program. Participants reported learning about the program through the program website (22.1%), bill inserts (15.5%), Cascade mailers (7.2%), and emails (3.6%). Moreover, a share of customers who viewed Cascade's marketing materials said it influenced their decision to participate – 30.9% said the materials were moderately influential, 27.8% said they were significantly influential, and 3.9% said they completely influential.

For low-income participants, word of mouth and community networks are the most common sources of program awareness. Nearly a third (28.6%) of respondents learned about the program through word of mouth, with Community Action Agencies (CAA) and assistance programs also playing a key role. This likely relates to how the program is delivered with the CAAs filling a central role in the delivery of the weatherization services.

Among non-participants, for those who were aware of the rebates offered, utility bill messages were the most effective communication channel (62.9%), followed by mailed messages (32.8%), emails (16.4%), and the Cascade website (12.1%). This finding suggests that while utility bill messages are effective in reaching some non-participants, there is still a need to enhance outreach efforts to improve overall program awareness.

Program staff noted that reaching rural customers has been an ongoing challenge, but they continue to assess potential strategies to reach these customers such as offering additional incentives to trade allies to provide services to these areas.

- **Recommendation 1:** Program staff's consideration of additional incentives to encourage trade allies is a potentially important solution given the role of trade allies in getting customers to participate in the program. The Evaluator recommends piloting of a bonus incentive to provide services to rural communities to assess if this approach increases participation. Additionally, rural communities also tend to be lower income communities so expanding the Low-Income Program budget to provide services may help increase rural participation.

5.7.2 Point of Entry

Findings from the non-participant surveys suggest that the key barrier to participation is lack of awareness. Almost three-quarters were (71.3%) unaware of Cascade's rebates for energy efficient equipment and home improvements. Additionally, customers who had installed gas equipment in the past three years identified other considerations for not engaging with energy efficiency and the rebate program including the cost of equipment (17.7%) and a lack of perceived savings from energy efficiency (9.6%).

More broadly, the key-factors non-participants identified for not participating were that they needed more information about the programs (53.1%), that they did not need to replace equipment (46.4%), and perceived participation to be too much of a hassle (12.7%).

- **Recommendation 2:** While the program has developed a large trade ally network, increasing direct to customer marketing may help increase awareness given that Cascade marketing was a common source of awareness among participants and non-participants.
- **Recommendation 3:** Consider emphasizing the point-of-sale rebates in marketing materials and on the program website to mitigate perceptions that participating is a hassle. For example, promoting it as a hassle-free way of getting the rebate on the website and providing a list of trade allies that participate in this delivery channel could be helpful.

A comparison of non-participant and Existing Homes participant survey responses suggest that while home characteristics across the two groups are similar, Existing Homes participants tended to be somewhat more educated and affluent. This finding suggests that socio-economic status may be a barrier to participation.

Community Action Partnership staff identified home condition as the greatest barrier to participating in the Low-Income Program. Interviewees explained that the biggest barriers to customer engagement include homes needing repairs outside the scope of the program and the existence of asbestos in the home. For many Low-Income Programs, the condition of the home is a common issue that prevents weatherization improvements. An approach that some utilities have used to help address this barrier is to partner with local non-profit organizations to help rehabilitate homes to a condition that would allow their participation.⁵

- **Recommendation 4:** Explore potential partnerships to assist with home rehabilitation to increase Low-Income Program eligibility.

Overall, a majority of participants across various segments expressed satisfaction with the application process, indicating that the program has successfully designed a user-friendly process for most users.

In the Existing Homes Survey, 78.6% of participants reported being very or somewhat satisfied with the application process. Similarly, in the Low Income Survey, 53.3% of respondents shared a positive sentiment, while all the builders interviewed agreed that the New Homes process was easy to navigate.

Despite these positive sentiments, a subset of participants across these groups encountered issues that point to potential areas for enhancement. A notable challenge identified by Existing Homes participants was understanding what equipment qualified. Although 73.3% of Existing Homes participants who completed the rebate application themselves found it very clear, 26.7% did not share this experience. Specifically, confusion about what type of equipment qualified and what the rebate process was, were the most common issues identified by those who found the application process to be unclear.

While 71.4% of the Low-Income Program participants who completed the application themselves found it very clear, the overall satisfaction rate was lower compared to the Existing Homes Participants.

The feedback from New Home Builders was uniformly positive, with all respondents finding the application process easy. This uniformity may reflect the familiarity that the interviewed builders had developed over their years of partnering with Cascade.

⁵ For example, the Public Service Company of Oklahoma partners with an organization called Revitalize T-Town (RTT). <https://oklahoma.gov/content/dam/ok/en/occ/documents/pu/energyefficiency/demand-program-annual-reports/2021-pso-demand-report.pdf>

- **Recommendation 5:** Although the Existing Homes program website lays out each of the participation steps, additional strategies may help clarify how the program works. For example, a graphic showing each step of the process might help clarify the process.

5.7.3 Participation Experience

Participants held favorable views of their contractors and project implementation, with most believing that the contractors completed the work in a reasonable time and conducted themselves professionally. This positive feedback is consistent across different participant groups, reflecting a general satisfaction with the contractor services provided by the program.

Most Existing Home participants reported that their contractors scheduled and completed work promptly (88.0%) and maintained professionalism and courtesy throughout the process (86.5%). However, a small percentage (6.1%) of respondents expressed dissatisfaction with their contractor. The primary issues among these dissatisfied participants included prolonged project completion times, unprofessional behavior, poor work quality, and poor communication. These concerns highlight specific areas where contractor performance can be improved to enhance participant satisfaction further.

Similarly, the Low Income participant findings indicate a predominantly positive view of contractors. Most respondents felt that their contractors managed the scheduling and completion of work efficiently (90.0% - 100.0%) and conducted themselves with courtesy and professionalism (80.0%). However, two respondents did express dissatisfaction, citing issues such as the contractor leaving a mess and not completing the work initially.

Builders had mixed reactions to the idea of point-of-sale (POS) new construction rebates. Two respondents expressed hesitancy regarding the POS rebates, citing administrative challenges (n=1) and distrust with suppliers (n=1). The remaining respondent was interested in POS rebates and their potential for instant-rebate-payment opportunities.

- **Recommendation 6.** Additional builder outreach and education is recommended to increase understanding and acceptability of the POS rebate offer. Time spent on understanding builder perspectives will likely lead to higher levels of POS rebate utilization.

Two of the CAP agency representatives were unsure if their agencies conducted inspections after project completion.

- **Recommendation 7.** Additional CAP Agency training and education is recommended to ensure the requisite low-income projects receive the mandatory post-project inspection.

5.7.4 Impact/Effectiveness

The evaluation of the energy efficiency program across different participant groups found a generally positive reception, with high levels of satisfaction and willingness to recommend the program. These findings underscore Cascade's success in meeting participant expectations and enhancing overall satisfaction with the utility company, Cascade.

Participants in the Existing Homes segment showed a high level of overall satisfaction with the program, with 88.0% saying they were very or somewhat satisfied. Additionally, 86.1% were satisfied with the rebate amount, indicating that the financial incentives provided are perceived as valuable and adequate. However, satisfaction with the time taken to receive rebates was somewhat lower at 69.5%, suggesting

an area for potential improvement. Despite this, the program positively influenced participants' views of Cascade, with 66.3% reporting increased satisfaction with the utility company due to their participation. Furthermore, a significant 77.1% of respondents indicated they were likely to recommend the rebate program to others.

Satisfaction levels among low-income participants were slightly lower, with 66.7% reporting overall satisfaction with the program. Nevertheless, the program had a notable positive impact on participants' satisfaction with Cascade, with 78.6% indicating increased satisfaction and none reporting a decrease. All respondents who participated in the Low-Income Program indicated a willingness to recommend the program to others.

Feedback from new home builders was uniformly positive, reflecting high satisfaction with various aspects of the program. Builders found the application process easy and straightforward, appreciated the range of measures offered, and were satisfied with the timeliness of rebate payments.

5.7.5 Measure Specific Findings

Key considerations when selecting program qualifying rebates varied by the equipment type, however rebates were in the top three considerations for all equipment, aside from the programmable thermostats.

For **furnaces**, the most influential consideration was contractor recommendations, cited by 65% of participants. This was followed by the availability of rebates, which influenced 47% of the participants, and desired features, which were important for 46%.

When it came to selecting a **fireplace**, the dominant factor was the desired features, mentioned by a substantial 85% of participants. The availability of rebates was the next significant factor, affecting 58% of participants, while the right size or color was a consideration for 46%.

For **smart thermostats**, the top three considerations were the desired features, which 57% of participants found important, followed closely by contractor recommendations at 51%. The availability of rebates also played a significant role for 51% of participants.

In the case of **programmable thermostats**, contractor recommendations were the leading factor, influencing 66% of the participants. Desired features and cost to operate were also key considerations, with 50% and 48% respectively indicating their importance.

Lastly, for **water heating systems**, the primary factors were contractor recommendations at 57%, desired features at 48%, and the cost to operate at 41%.

- **Recommendation 8:** Given the higher savings potential for smart thermostats over programmable thermostats and the influence that contractor recommendations have on the decision to install the programmable thermostat, consider working with contractors to encourage them to recommend smart thermostats over programmable thermostats to their customers.

Replacement strategies may be limiting the savings from programmable thermostats. A larger share of customers (54.8%) reported that their new programmable thermostat replaced a different programmable thermostat, suggesting no difference between the baseline and efficient condition.

- **Recommendation 9:** Consider limiting rebates for programmable thermostats to cases where a standard thermostat is replaced.

5.7.6 Additional Offerings

Inclusion of a home energy audit program may help customers identify more comprehensive home improvements. The program does not currently offer a home energy assessment component, and these might help customers understand the best opportunities for them to improve their energy efficiency. This component could include direct installation of low-flow devices for customers with natural gas water heating.

Incentives for comprehensive window and door replacements. Partial window and door replacements occurred approximately 62.0% and 50.0% of the time, respectively. Budget concerns were the most common reason. Consider offering a bonus incentive by working with contractors who will certify complete replacements of these measures.

Consider a dedicated multifamily program. Although the program currently allows multifamily buildings to receive incentives, a dedicated multifamily program would allow it to better serve the unique needs of this market through targeted recruitment of property managers and developing incentives that are aligned with the savings potential for multifamily properties.

6 COMMERCIAL PROGRAMS PROCESS EVALUATION RESULTS

6.1 INTRODUCTION & METHODOLOGY

Cascade offers a variety of rebates for commercial customers interested in upgrading equipment. Commercial equipment rebates range from HVAC equipment, insulation, food service equipment, weatherization measures, and water heating equipment. This chapter presents the methods and findings for both the Prescriptive and Custom programs.

The process evaluation of the Commercial programs included the following data collection activities:

- *Cascade Program Staff Interviews.* The Evaluator interviewed four staff at Cascade involved in the administration of the Commercial programs. These interviews collected information from program staff about program design, administration, marketing, and stakeholders.
- *Program Participant Surveys.* The Evaluator conducted surveys with a series of program participants. These surveys covered a range of topics, including program awareness, participation, and satisfaction.
- *Trade Ally Interviews.* The Evaluator interviewed trade allies who participated in the C&I Prescriptive pathway.
- *Other Utility Interviews.* The Evaluator interviewed representatives from other natural gas utilities to learn about the benefits of challenges of self- versus third-party implementation.

6.2 COMMERCIAL PROGRAMS STAFF INTERVIEW

The Evaluator interviewed three Cascade Natural Gas staff members about the commercial programs in December 2023. The staff interviewed included the program manager, the energy efficiency strategies manager, and the rebate processing manager.

Cascade is contracted with TRC to implement their commercial programs. They meet with TRC staff once a month and receive regular reports and updates. The current contract with TRC measures success based on performance as well as time and materials. In general, the commercial programs are trade ally driven, however TRC conducts a lot of “*boots on the ground*” outreach, travelling to communities to find qualifying projects that build their pipeline. Commercial program qualification criteria are broad, with participants ranging from small-local businesses to big-box chains – “*no business is of the table.*” Staff also explained that most participants fall into the Prescriptive pathway and that the Custom pathway is for specific customers with specific needs that are not covered in the Prescriptive pathway.

Staff noted that the program’s current incentive structure is in question, as new legislation in Washington focused on removing gas equipment eligibility for new commercial construction has created a sense of confusion and uncertainty across the industry. Moreover, baseline efficiency levels have increased, making it difficult to incentivize additional above-and-beyond equipment. In response to the removal of fryers, steamers, and dishwashers as eligible measures, Cascade staff explored the cost-effectiveness of buy-back and second-hand programs, but determined they would not garner enough savings.

Cascade staff indicated that they recently discontinued their midstream programs due to concerns with the model. They explained that the rebate is based on the amounts of therms saved, but they felt as

though the savings estimated submitted were too high. Moreover, they were concerned that the midstream program was taking away business from point-of-sale opportunities.

Staff noted that the commercial program’s biggest struggle is the ebbs-and-flows of the project pipeline. They explained that some years one to two big projects allow them to “shoot past their goal” but other years projects are smaller, and it is harder to reach goal. In an attempt to mitigate this issue, Cascade sets two-year goals and incentive budgets for the program to allow big and small projects to even out.

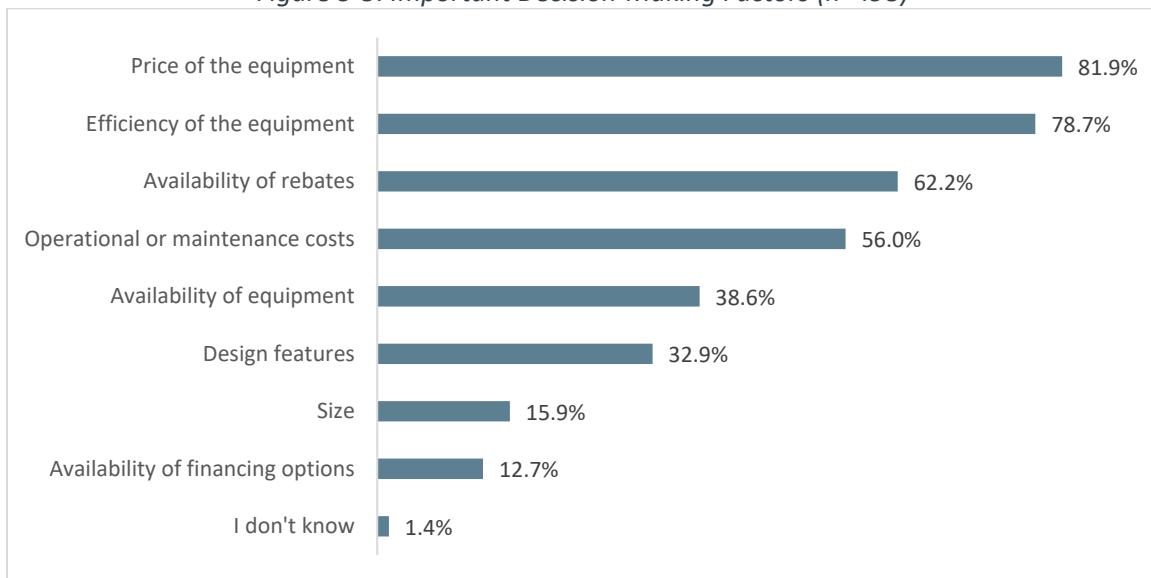
In addition to the prescriptive and custom pathways, Cascade launched a SEM pilot. This pilot has yet to produce energy savings, but staff hope that the relationship building, and connections made through the pilot will result in future projects and opportunities.

6.3 COMMERCIAL PROGRAMS PARTICIPANT SURVEY

The Evaluator conducted a survey of Cascade commercial rebate program participants that participated during the 2019 to 2023 program years to gather feedback about customers’ engagement with and experience of the program. Tracking data used to develop the sample frame for this survey included 397 unique contacts with either an email address and/or phone number. Participants were contacted via phone and/or email up to five times and asked to complete a survey. In total 70 customers (17.6% response rate) responded to survey efforts and were included in the analysis.

*Respondents held a variety of roles at their facilities, most commonly the owner (45.7%, n=32) (***Many factors were important considerations for participants, but equipment price and efficiency were key factors when deciding to participate in the program.** *The majority of respondents considered the price of the equipment (81.9%, n=408) and the efficiency of the equipment (78.7%, n=392) when deciding whether or not to participate and the type of equipment to purchase (Figure 5-3). As shown, rebates were also a common consideration.*

Figure 5-3: Important Decision-Making Factors (n=498)



When considering installing program qualified equipment, respondents often relied on recommendations from contractors and personal contacts. Two-thirds of respondents relied on a

recommendation from a contractor or retailer when thinking about purchasing and installing the equipment rebated through the program (**Error! Not a valid bookmark self-reference.**).

Table 5-1).

Table 6-1: Respondents' Role (n=70)

Source	%	n
Proprietor/Owner	45.7%	32
Facilities manager	17.1%	12
President/CEO	12.9%	9
Other financial/administrative position	8.6%	6
Other facilities management position	4.3%	3
Manager	4.3%	3
Energy manager	2.9%	2
Church staff	2.9%	2
Did not specify	1.4%	1

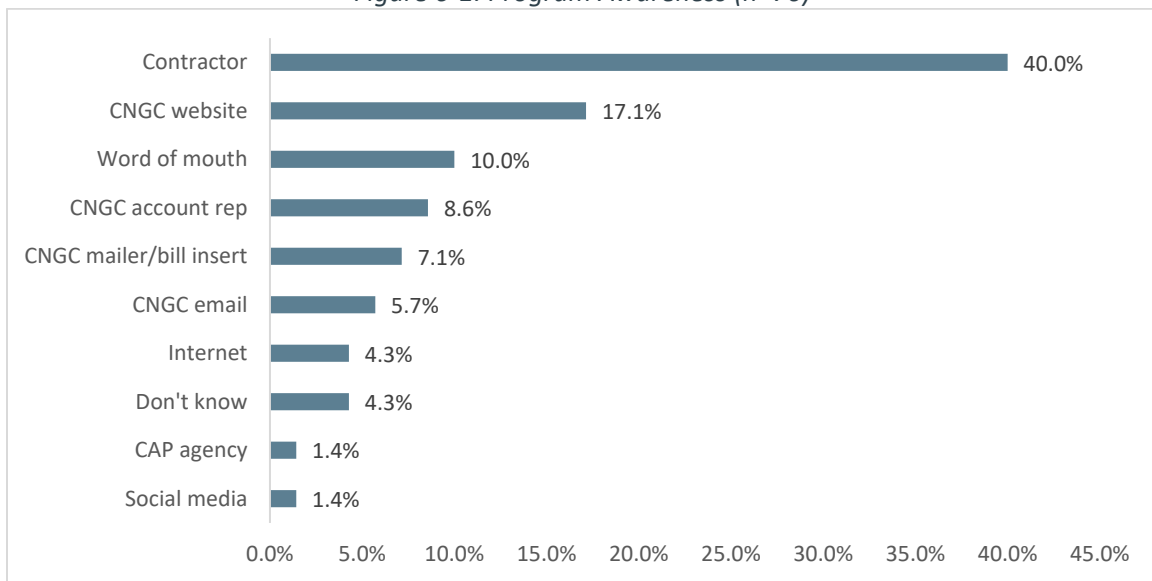
6.3.1 Pre-Program Energy Management Practices and Policies

Prior to participating in the program, the majority of respondents had dedicated personnel and policies for energy management, but fewer had specific energy-saving goals, carbon reduction goals, or advanced energy management systems in place. Prior to participating in the program more than half of respondents had a person responsible for monitoring and managing energy usage at the facility (57.1%, n=40) and specific policy requiring energy efficiency be considered when purchasing equipment (52.9%, n=37). Fewer respondents had defined energy saving goals (20.0%, n=14) and carbon reduction goals (12.9%, n=9). Less than twenty percent of respondents (15.7%, n=11) indicated their facility had a Building Automation System (BAS) or Energy Management System (EMS).

6.3.2 Program Awareness & Motivation to Participate

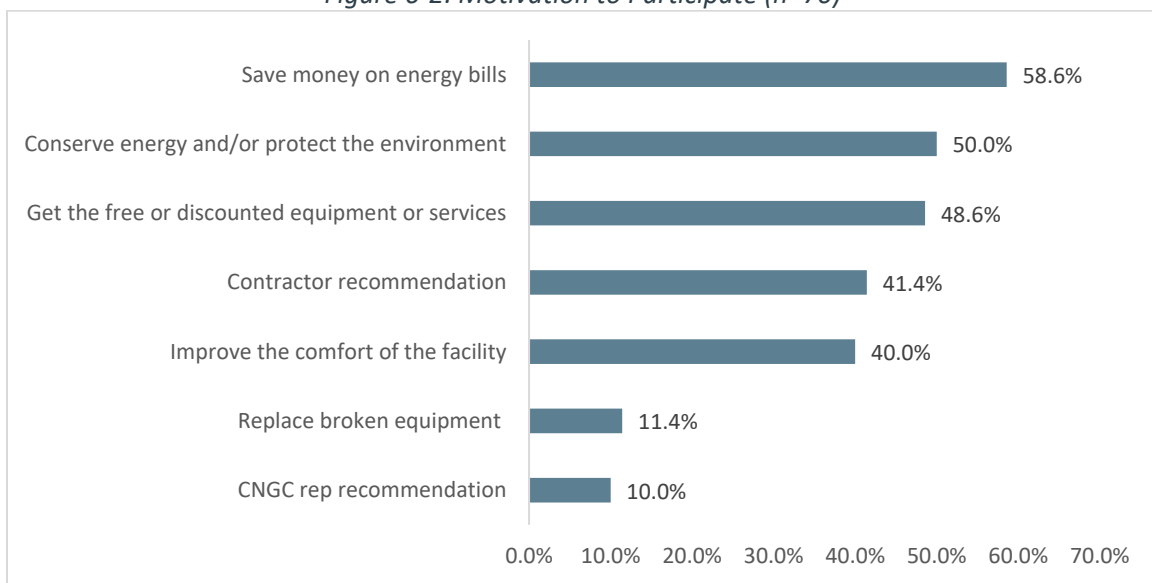
Contractors were the most common source of program awareness, although Cascade marketing and account representatives were also important sources. Respondents learned about the program through a variety of avenues, most commonly through their contractor (40.0%, n=28) (Figure 6-1).

Figure 6-1: Program Awareness (n=70)



Motivations for participation varied with financial and environmental considerations the most common. Respondents were motivated to participate in the program for a variety of reasons including to save money on energy bills (58.6%, n=41), to conserve energy and protect the environment (50.0%, n=35), and get free/discounted equipment (48.6%, n=34) (Figure 5-2).

Figure 6-2: Motivation to Participate (n=70)



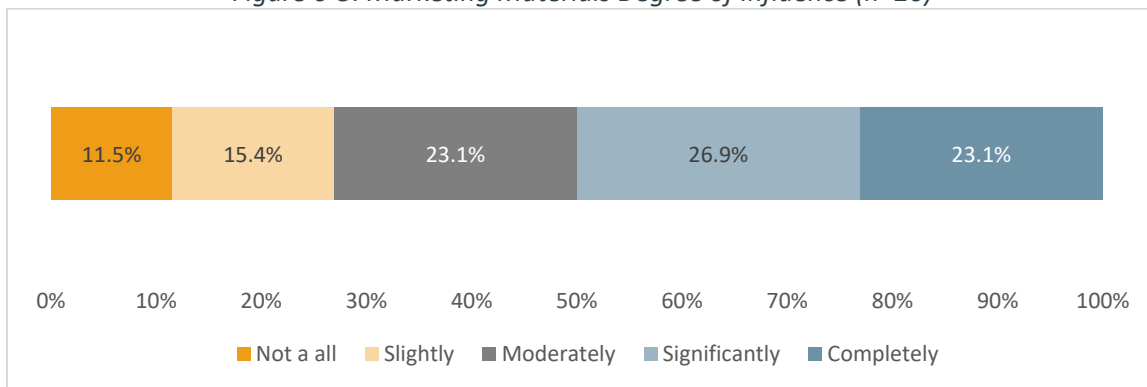
Although Cascade marketing materials were not broadly viewed by participants, these materials were considered influential by those who viewed them. More than one-third of respondents reviewed Cascade materials before participating (37.1%, n=26). Materials reviewed included Cascade’s website, a Cascade mailer/flyer, a Cascade email, a conversation with Cascade representative, and Cascade social media post (Table 5-2). When reviewing materials, respondents were most interested in the information about the rebate (100.0%, n=26), details on the benefits of the product or service (57.7%, n=15), and the

environmental impact of the product or service (42.3%, n=11). Half of respondents indicated the marketing materials significantly or completely influenced their decision to participate (Figure 5-4).

Table 6-2: Materials Reviewed (n=26)

Source	%	n
CNGC website	73.1%	19
CNGC mailer/flyer	30.8%	8
CNGC email	23.1%	6
Conversation with CNGC rep	7.7%	2
CNGC social media post	3.8%	1
CNGC website	73.1%	19

Figure 6-3: Marketing Materials Degree of Influence (n=26)



6.3.3 Program Participation

Respondents received rebates for a variety of different energy efficient equipment including furnaces, water heaters, boilers, and insulation (Table 5-3). Only four respondents indicated they had issues receiving the equipment they got a rebate for.

Table 6-3 Type and Number of Measures Received (n=70)

Measure Category	Recipients
Furnace	17
Water heater	15
Boiler	12
Attic insulation	6
Wall insulation	6
Windows	5
Fryer	5
Roof insulation	4
Convection oven	3
Insulation (general)	3
Radiant heating	2
Make up air unit (part of HVAC system)	2
Double rack oven	1
Floor insulation	1
Ceiling insulation	1
Dishwasher	1

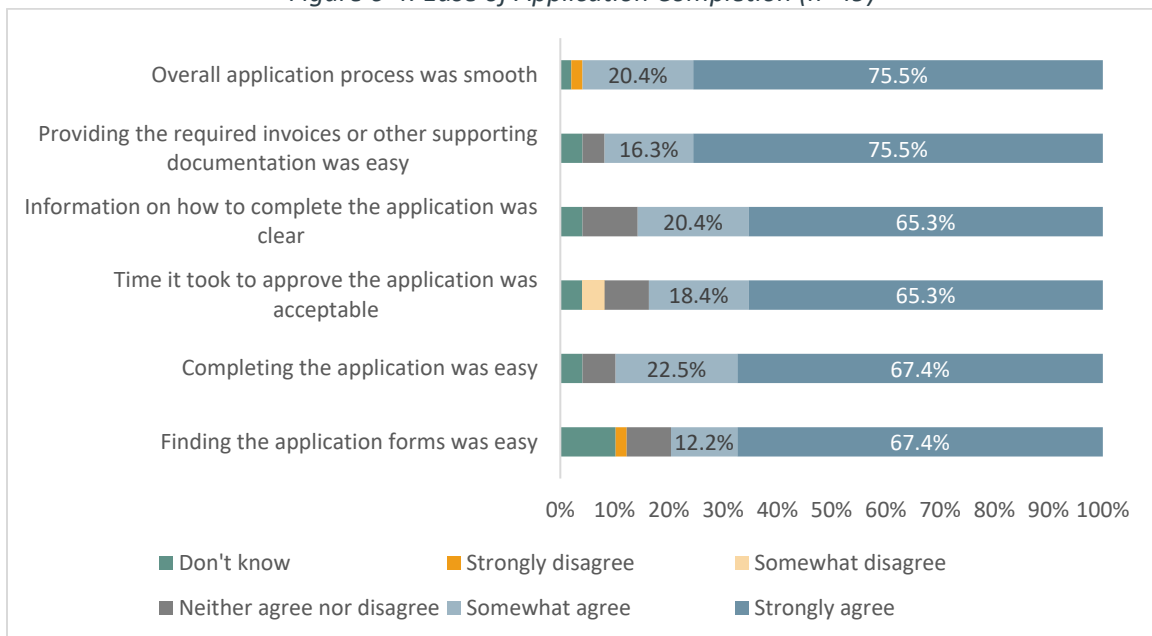
There was little evidence that participants encountered significant supply constraints when completing their projects. Four respondents reported that they had some difficulty obtaining equipment or materials for their projects. One customer reported the insulation they purchased was not all in stock and about a week was needed to obtain it. Two of the customers reported that it took a long time to get the equipment, both of whom installed furnaces and one of whom also installed a water heater. The fourth customer reported that they needed to order the furnace they installed.

Table 6-4 Reported Difficulty Obtaining Equipment or Materials

Difficulty Obtaining Equipment or Materials	%	n
Yes	6%	4
No	94%	66

The majority of respondents who completed the application themselves agreed that the process was smooth, providing required documentation was easy, the application instructions were clear, the time it took to complete the application was acceptable, completing the application was easy, and finding the application forms was easy. The responses are shown in Figure 6-4 for the half of the respondents completed the rebate application themselves (51.6%, n=49). Just over half of these respondents submitted a PDF of the application (55.1%, n=27) and 30.6% (n=15) submitted an online application; the remaining respondents did not remember the platform they used (16.3%, n=8).

Figure 6-4: Ease of Application Completion (n=49)



A sizable share of participants received technical assistance provided by the program to help reduce barriers to participation and identification of efficiency projects. Just over one-third of respondents received some sort of facility assessment, calculation, or technical assistance from the program (37.9%, n=25). Application assistance (18.2%) and facility assistance (12.1%) were the most common forms of assistance received.

Table 6-5 Summary of Program Assistance Received

Assistance Received	%	n
No assistance	62.1%	41
Facility assessment	12.1%	8
Calculation	9.1%	6
Application assistance	18.2%	12

6.3.4 Measure Specific Decisions

Participant reasons for installing the program qualified equipment varied by equipment type, but rebates were a factor for each kind of equipment. Table 6-6 summarizes the top considerations customers had when selecting equipment for the program. Additional details are provided in the following sections.

Table 6-6 Highest Rated Considerations when Selecting Equipment

Reason	Heating Equipment (n=33)	Food Service Equipment (n=10)	Water Heaters (n=15)
Contractor recommendation	60.6%		40.0%
Cost less to operate	45.5%		46.7%
Rebate available	45.5%	55.6%	53.3%
Right size/ color		55.6%	
Desired brand		44.4%	
Desired features		44.4%	
Good for environment			40.0%
Good price			40.0%

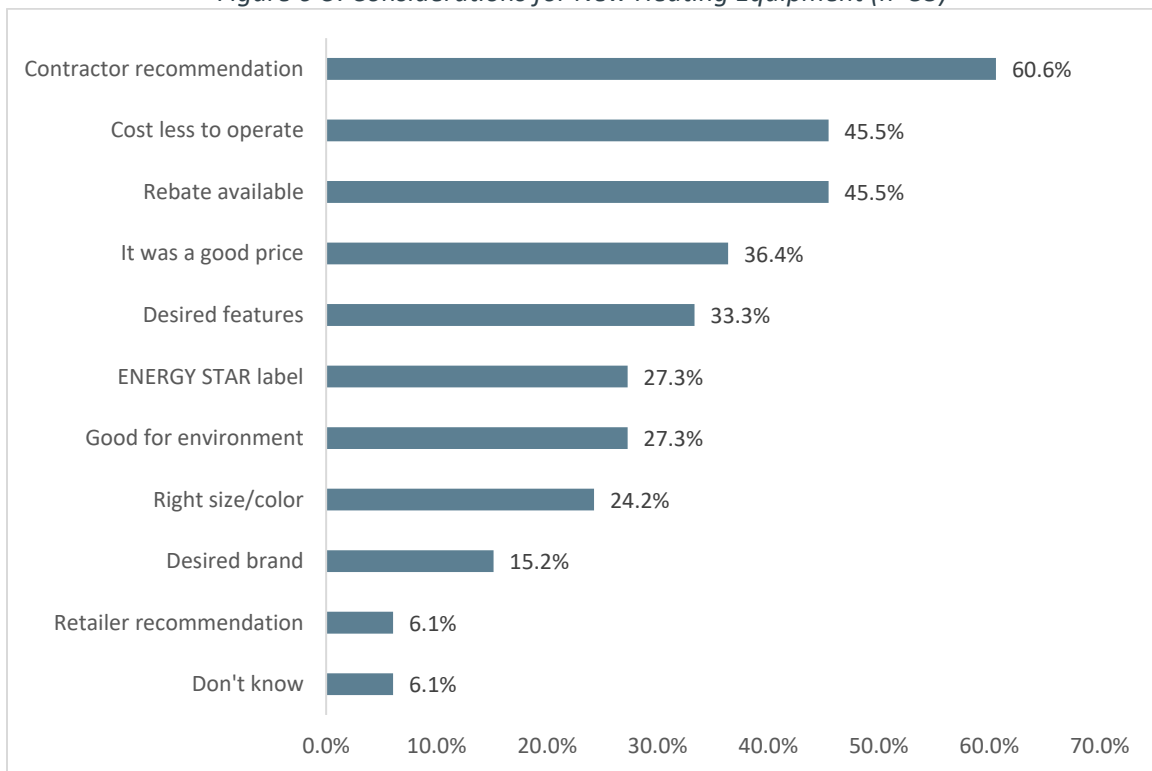
6.3.4.1 Heating Equipment

Respondents received a variety of different heating equipment including furnaces, boilers, radiant heating, and make up air units (Table 6-7). Respondents considered a variety of factors when deciding what type of heating system to purchase, most notably contractor recommendations (60.6%, n=20), rebate availability (45.5%, n=15), cost to operate (45.5%, n=15) (Figure 6-5).

Table 6-7 Type and Number of Heating Equipment (n=33)

Measure Category	Recipients
Furnace	17
Boiler	12
Radiant heating	2
Make up air unit (part of HVAC system)	2

Figure 6-5: Considerations for New Heating Equipment (n=33)



Three-quarters of respondents replaced an old system (75.8%, n=25), more than half of which were working at the time of replacement (60.0%, n=15). All the new heating systems were working at the time of survey completion.

6.3.4.2 Food Service Equipment

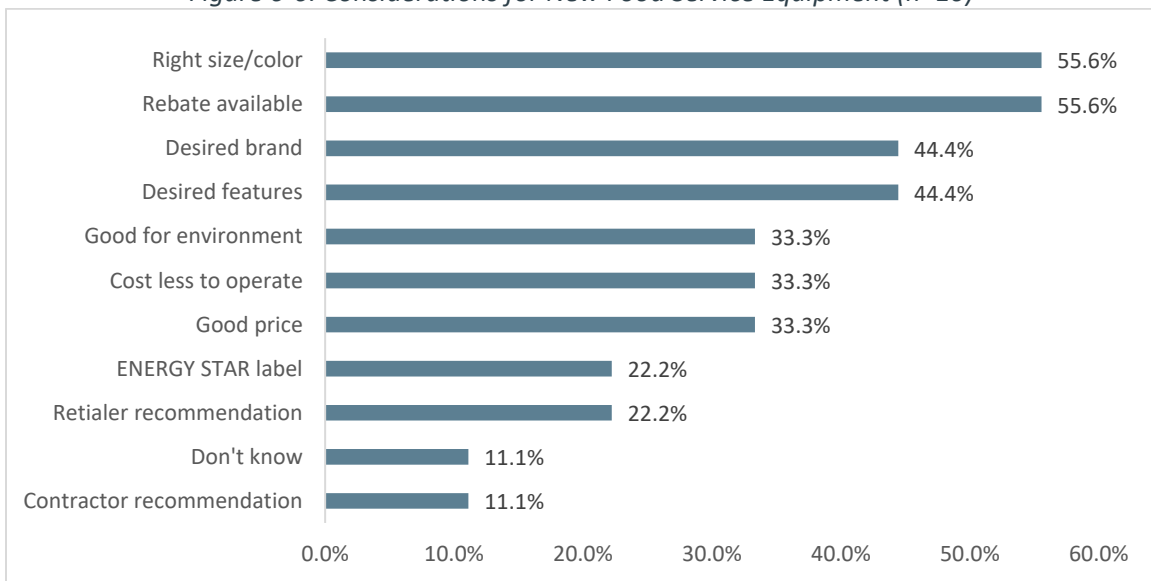
Respondents received rebates for ten pieces of food service equipment including fryers, convection ovens, a double rack oven, and a dishwasher (Table 6-8). Respondents chose their food service equipment for a variety of reasons including right size/color, rebate availability, desired brand, and desired features (Figure 6-6).

Six of the food service equipment purchases were to increase capacity or broaden the menu and four replaced broken equipment.

Table 6-8 Type and Number of Food Service Equipment (n=10)

Measure Category	Recipients
Fryer	5
Convection oven	3
Double rack oven	1
Dishwasher	1

Figure 6-6: Considerations for New Food Service Equipment (n=10)



6.3.4.3 Water Heaters

Fifteen respondents received rebates for water heaters. The most popular factor respondents considered when choosing their water heater was rebate availability and cost to operate (Figure 6-7). More than half of the water heater purchases were planned replacements (60.0%, n=9) (Figure 6-8) and replaced an old water heating system. Six of the nine planned replacements replaced working equipment. All the water heaters were still installed and working.

Figure 6-7: Considerations for New Water Heater (n=15)

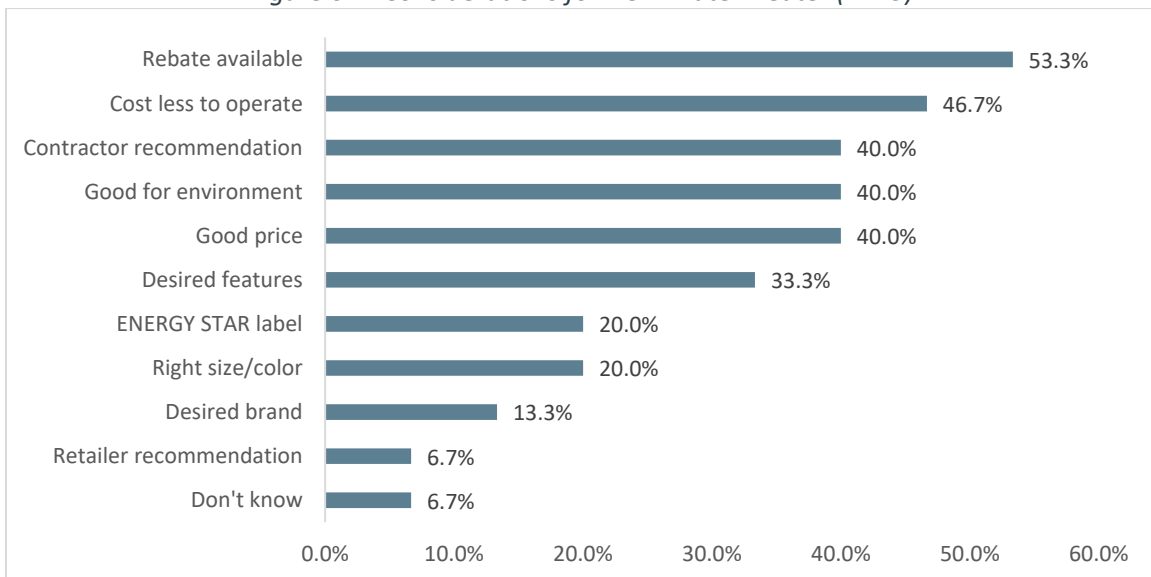
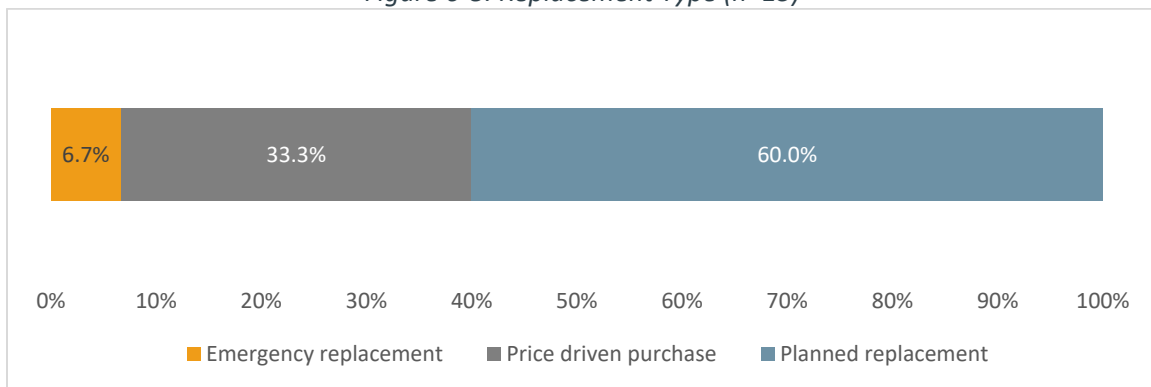


Figure 6-8: Replacement Type (n=15)



6.3.4.4 Building Envelope: Windows and Insulation

Twenty-one respondents received rebates for building envelope upgrades like windows and insulation measures. Attic and wall insulation were the most popular building envelope measures, followed by windows (Table 5-7).

Table 6-9: Building Envelope Measures

Measure Category	Respondents
Attic insulation	6
Wall insulation	6
Windows	5
Roof insulation	4
Insulation (general)	3
Floor insulation	1
Ceiling insulation	1

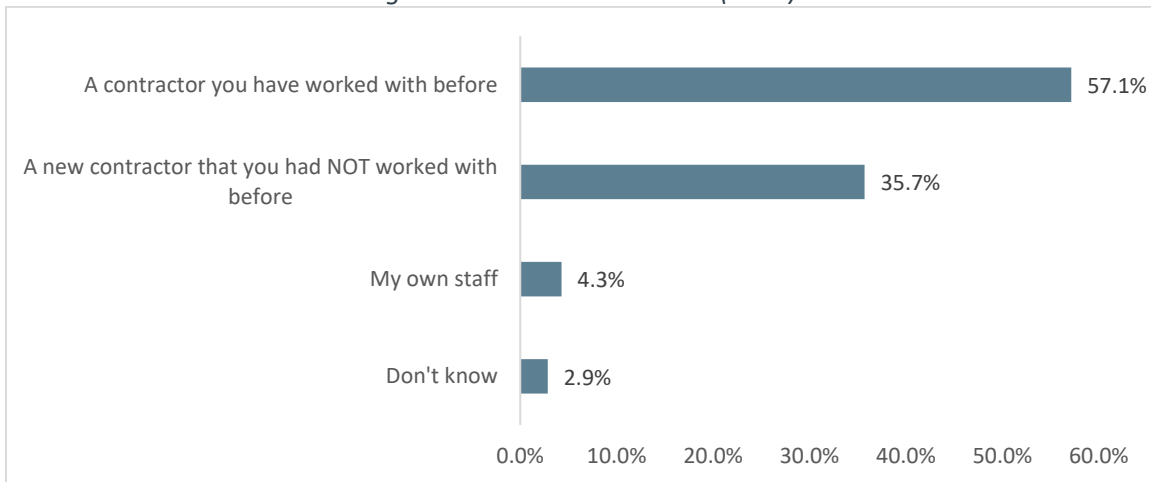
Among the 19 respondents who installed some type of insulation, 11 of them (57.9%) replaced all of the insulation. The remaining respondents indicated full replacement was unnecessary (n=3), they had plans to finish replacement in the future (n=2), tenant preferences (n=2), and installation concerns (n=1) as reasons for not replacing all the insulation. Only one of the five window recipients replaced all their single-pane windows; the remaining window recipients cited budget constraints (n=4).

6.3.5 Experience with Contractor and Inspection

Participants tended to work with contractors they had previously worked with, highlighting the importance of ensuring broad awareness of the program among customers. More than half of respondents used a contractor they have worked with before to install their equipment (Of the 23 customers that used a contractor that they had not previously worked with, three stated that they were a Cascade trade ally, three stated they were not a Cascade trade ally, and the majority (n= 17) did not know.

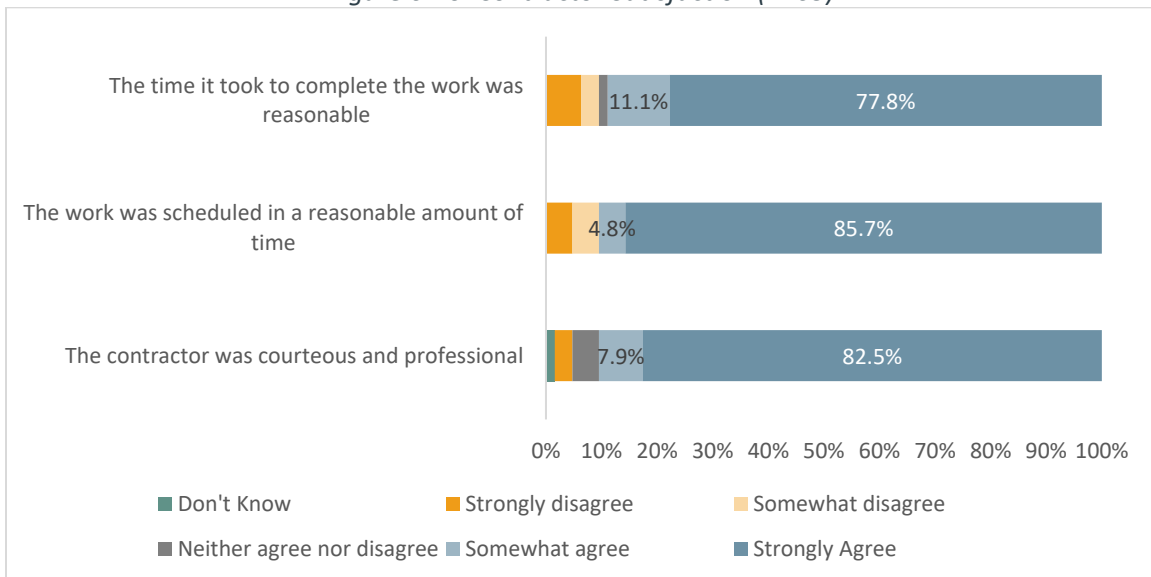
Figure 6-9). Of the 23 customers that used a contractor that they had not previously worked with, three stated that they were a Cascade trade ally, three stated they were not a Cascade trade ally, and the majority (n= 17) did not know.

Figure 6-9: Contractor Source (n=70)



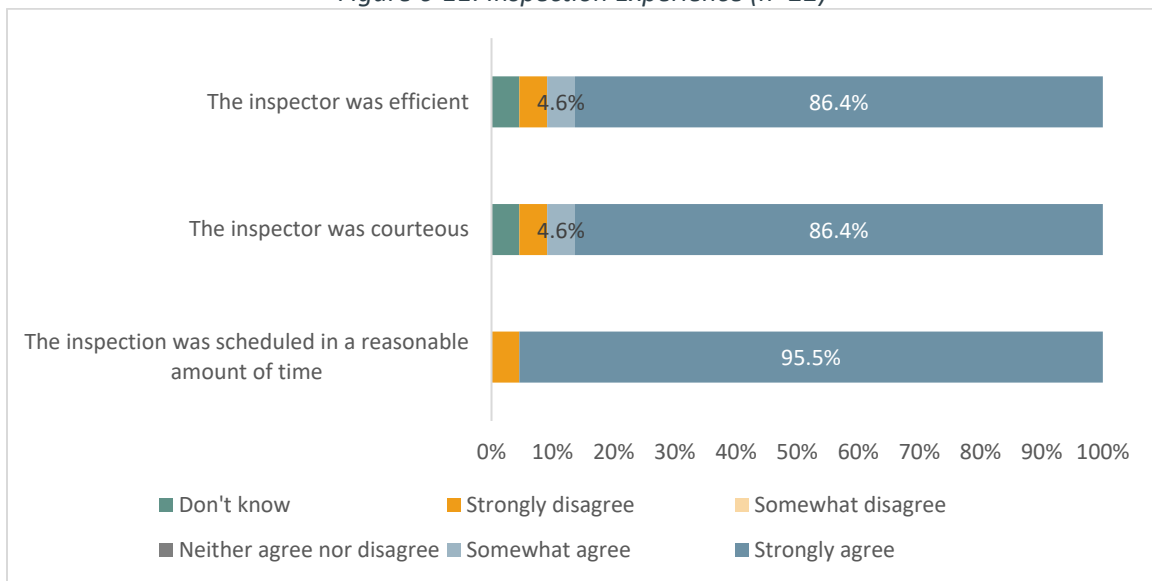
In general, respondents who used a contractor (n=63) were satisfied with time it took to schedule the install, the quality of the work, and the contractors’ professionalism (Figure 6-10). Among the six respondents who expressed some dissatisfaction with the contractor, reasons for dissatisfaction included scheduling and timeliness issues (n=3), poor quality of work (n=2), and did not receive all the work promised (n=1).

Figure 6-10: Contractor Satisfaction (n=63)



Participants who received a post-installation inspection generally viewed that process favorably. About one-third of respondents remember receiving an inspection after their equipment was installed (31.4%, n=22). Among these respondents, most agreed the inspector was efficient, courteous, and timely (Figure 6-11).

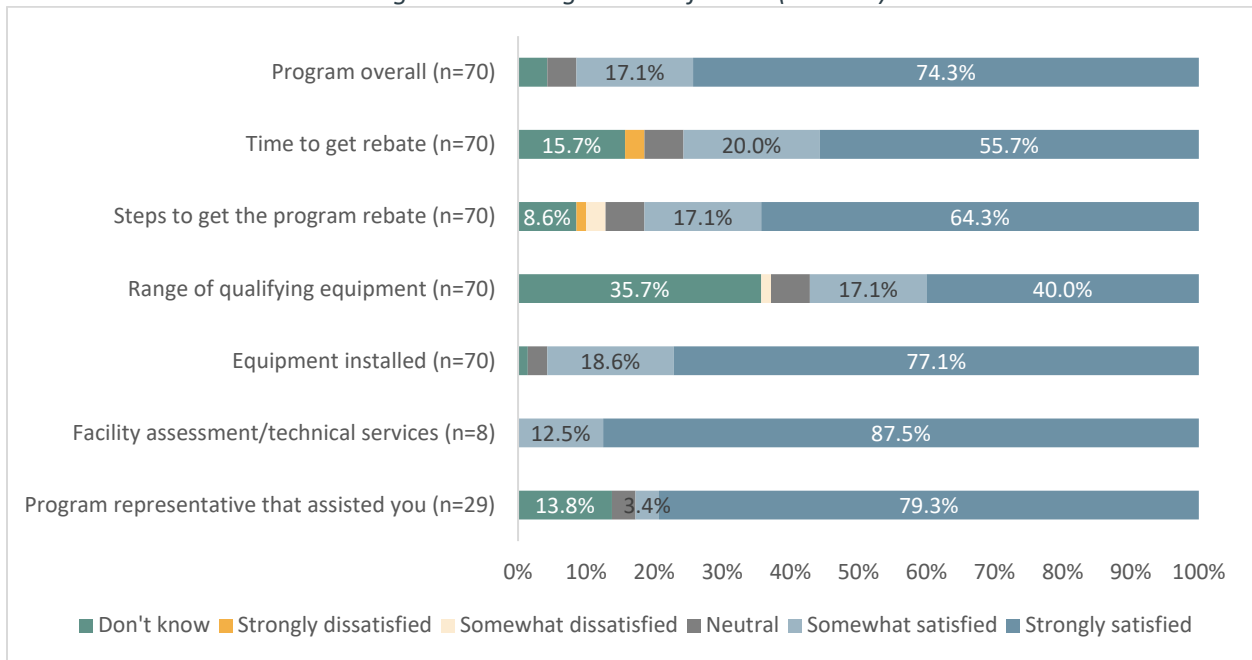
Figure 6-11: Inspection Experience (n=22)



6.3.6 Satisfaction

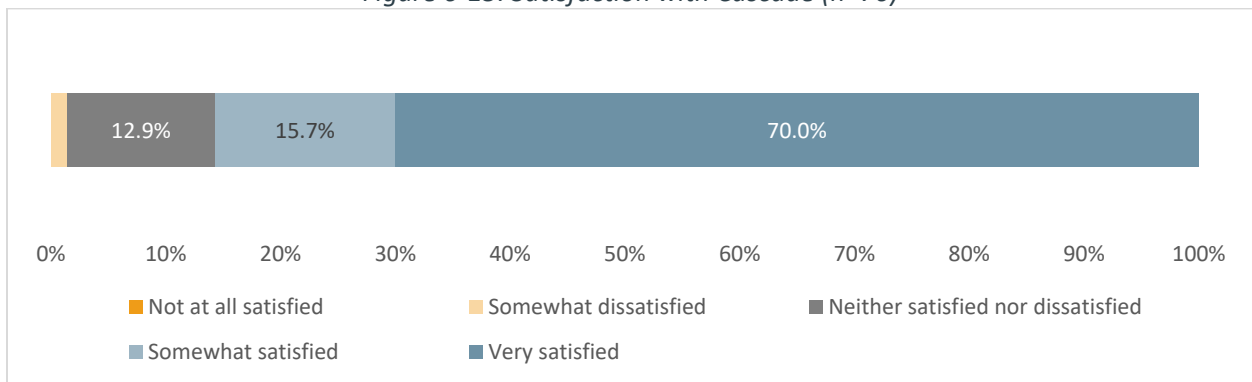
In general, respondents were satisfied with the program overall, the time to get the rebate, and the equipment installed (Figure 5-12). Ninety-one percent of respondents were somewhat or strongly satisfied with the program overall and none reported dissatisfaction with the program overall. We note that a substantial proportion of the population could not speak to the range of qualifying equipment (35.7%, n=25), the time to get the rebate (15.7%, n=11), and program representative that assisted them (13.8%, n=4); this lack of insight likely results from not recalling the details of the facility assessment, an unfamiliarity with the range of qualifying equipment, and not communicating with program representative. Five respondents expressed some level of dissatisfaction with the program. Reasons for dissatisfaction included the contractor not providing enough information about program and offerings (n=3), an unresponsive contractor (n=1), and long wait for rebate (n=1).

Figure 6-12: Program Satisfaction (n varies)



Most respondents were satisfied with Cascade Natural Gas as their service provider (85.7%, n=60) (Figure 5-5).

Figure 6-13: Satisfaction with Cascade (n=70)



6.3.7 Firmographics

Table 5-10 describes the survey respondent firmographic characteristics.

Table 6-10: Demographics (n=70)

Answer	%	Count
Building ownership		
Rent	15.7%	11
Own and occupy	58.6%	41
Own and rent to someone else	21.4%	15
Don't know	4.3%	3
Building type		
Company's only location	52.9%	37
One of several locations	38.6%	27
Headquarter location of a company with several locations	4.3%	3
Don't know	4.3%	3
Gas billing		
Billed directly by CNGC	82.9%	58
Gas bill handled by 3 rd party	7.1%	5
Gas bill included in rent	2.9%	2
Business Type		
Restaurant (not fast food)	12.9%	9
Small office	11.4%	8
School K-12	7.1%	5
Religious building	7.1%	5
Mixed use	7.1%	5
Industrial/manufacturing	5.7%	4
Warehouse or distribution center	5.7%	4
Fast food restaurant	5.7%	4
Lodging	5.7%	4
Retail	5.7%	4
Health clinic	4.3%	3
Large office	4.3%	3
Agricultural	2.9%	2
Apartment	2.9%	2
College or university	1.4%	1
Government building	1.4%	1
Gathering space	1.4%	1
Repair shop	1.4%	1
Flight hangar	1.4%	1
Spa	1.4%	1
Don't know	2.9%	2

6.4 COMMERCIAL PROGRAMS TRADE ALLY INTERVIEWS

The Evaluator conducted phone interviews with three contractors engaged in Cascade’s commercial programs. Cascade provided the Evaluator with a list of 68 contractor contacts, of whom 42 had a valid email address and 56 had a valid phone number; seven contacts had no contact information. Contacts with valid contact information were contacted up to four times via email and phone. Table 6-11 summarizes contacts’ interview status. Nine of the twenty respondents who declined an interview indicated they had never participated in the program.

Table 6-11: Interview Status (n=68)

Completed	3
Four attempts	30
Declined	20
No contact information	7
No show	5
Bad number	3

Due to the low response rate, the Evaluator cautions drawing overarching conclusions from these responses. The Evaluator did not interview any food service contractors and therefore was unable to answer some of the research questions specifically related to food service equipment.⁶

6.4.1 Background and Program Tenure

Responding trade allies provided weatherization (n=2) and heating/cooling equipment (n=1) services to customers in Bellingham (n=2) and Yakima (n=1). All three respondents have participated in Cascade’s programs for multiple years; they learned about the program through a customer (n=1), PacificCorp’s WattSmart program (n=1), and a colleague (n=1).

6.4.2 Program Participation

Respondents were motivated to participate in the program to provide their customers with the best deals and discounts, as well as to promote energy efficient equipment. Respondents explained that they do not receive any project leads from Cascade, but rather generate all their leads on their own through emails, Yelp advertisement, website banners, and word-of-mouth.

In general, respondents’ customers are not familiar with Cascade’s rebate offerings. When presented with the offerings, some customers question the rebates, believing they are “*too be good to be true*” and express concerns that the measures and equipment are not high quality. Responding contractors mitigate these concerns by assuring customers that the rebates are legitimate and that the measures are superior to standard efficiency options. Two respondents noted that most of their customers are not familiar with Cascade’s incentive offerings.

⁶ Food service specific research questions: 1) To what extent has Washington’s energy efficient code enhancements moved the market away from new food service equipment purchases to used food service equipment purchases? 2) To what extent could additional food service-related measures increase program savings? Currently, CNGC offers griddles and ovens; what other food-service related equipment exists that exceed the ENERGY STAR standard and what is that equipment’s’ market penetration?

All three contractors explained that they offer energy efficient equipment and present the rebates to all their customers. Two of the responding contractors complete the application on behalf of their customers while the other contractor provides customers with the information, they need to send in the application themselves. The two respondents who completed the application indicated the process is straightforward; one respondent noted that the time it takes to receive the rebate is longer than ideal (up to two months). Respondents did not recall Cascade performing any post-project inspections.

6.4.3 Program Satisfaction

None of the respondents were aware of any training opportunities provided by Cascade, but all three expressed interest in such opportunities. Specifically, respondents requested annual program kick-off meetings and onboarding training so everyone is up to date on program changes and incentive offerings. The frequency of communication between respondents and Cascade varied; one respondent noted they never spoke with Cascade, while the remaining two respondents noted they have semi-regular communication with Cascade or TRC (program implementer) based on their project pipelines.

In general, respondents were satisfied with the program (Table 6-12). One respondent noted that Cascade is much easier to work with than other neighboring utilities due to its streamlined application process.

Table 6-12: Program Satisfaction (n=3)

	Dissatisfied	Neutral	Satisfied	N/A
Program application process	0	0	3	0
Range of qualifying measures	0	0	2	1
Time to receive rebate	0	1	1	1
Program overall	0	1	2	0

Respondents provided suggestions for program improvement. In addition to annual training opportunities (n=3), respondents requested contact information for a program representative for questions (n=1) and list of qualifying customers to verify eligibility (n=1).

6.5 OTHER GAS UTILITY STAFF INTERVIEWS

Cascade’s commercial programs are currently implemented by a third party, namely TRC. Cascade is exploring alternative commercial program implementation models and therefore requested ADM to conduct interviews with other gas utility staff. These interviews ought to address the advantages and disadvantages of in-house versus third-party implementation of commercial programs.

ADM interviewed staff from two other gas utilities from the southern and central U.S. One of these utilities served a territory of about 425,000 people while the other utility serves about 910,000 people; as of 2021, Cascade serves approximately 300,000 of people in Washington and Oregon. Interviewed staff included the Manger of Conservation Improvement and Commercial & Industrial Program Manager from one utility and the Director of Energy Efficiency and the Director of Business Development from the other utility. The smaller utility – henceforth referred to as utility A – uses a third-party implementer for its custom program (it self-implements prescriptive), while the larger utility – henceforth referred to as utility B – implements all commercial programs in house (Table 6-13).

Table 6-13: Background of Interviewed Utilities

	Service Territory	Implementation Model	Region
Utility A	425,000 people	Custom: third-party Prescriptive: in-house	South
Utility B	910,000 people	Internal	Central

6.5.1 Utility A – Mixed Implementation

Utility A uses a third party to implement their custom commercial program, while implementing the prescriptive program in house. Staff explained the difference in implementation model stems from the difference in program design. The prescriptive program consists of mail-in-rebates for boilers, food service equipment, and furnaces. This program is primarily trade ally driven, as trade allies receive an additional incentive on top of the incentive the customers receive. In contrast, custom program customers often do not use an external trade ally, but rather install the equipment in-house. Moreover, unlike the prescriptive program that has standard payouts for each measure, custom program is based on savings calculations and can be more complicated.

Staff explained that this dual-implementation model has been in place since the inception of the programs. They explained that they prefer in-house implementation for the prescriptive program as it allows them build relationships and trust with their customers and reduces unnecessary middlemen and paperwork that might discourage customer engagement. Staff noted that this sort of in-house implementation model relies on having a strong project manager with deep knowledge of the industry and the community. Staff explained that they use a third-party implementation model for the custom program as there were not enough custom customers nor potential savings to justify the costs of internal implementation. Staff noted that their implementation partner is a leader in the field, has extensive knowledge about custom programs, and engages with other utilities in the state allowing for better integration and collaboration. Although the third-party model caused confusion and challenges during the initial years of the program, with trade allies feeling as though the implementer was stealing their business and customer confusion regarding who the primary program contact was, these challenges smoothed out over time and the program now benefits from strong communication and partnerships. Staff underscored the importance of third-party implementers having an in-state presence to assist with relationship building.

Moving forward, this utility does not plan to modify their programs’ implementation models. Their relationship with the implementer is strong and they regularly have a strong pipeline of projects and are meeting program goals.

6.5.2 Utility B – In House Implementation

All of Utility B’s energy efficiency programs are implemented in-house. The utility employs program staff, account managers, and engineers who manage all aspects of the commercial program implementation including outreach, trade ally engagement, project technical assistance, and rebate processing. Utility B does not use a turn-key commercial program but rather works with trade ally and customers to provide project-specific services and assistance.

Utility B prefers the in-house implementation model as it allows for better relationship building and brand awareness, as well as enhanced control over the program. Moreover, previous cost-effectiveness

studies they conducted demonstrated the in-house implementation was more cost-effective than third-party implementation. Although staff were pleased with their programs' design and structure, they acknowledged challenges with this model exist. They explained that this model involves "*many moving parts and many people involved*", rather than having one third-party implementation contact who is responsible for meeting goals. Additionally, they noted that there is often an "*avalanche of work to process in the fourth quarter*" as projects wrap up before the end of the year. Despite these challenges, staff emphasized their strong preference for in-house implementation, consistently underscoring the benefits of program control and brand awareness.

Staff from Utility B did not believe the success of different implementation models varies across different utility sizes. Rather, they highlighted the importance of having qualified and motivated staff. In conclusion Utility B staff said:

"Would choose inhouse. It's the only way to go. Control and access to customers. Easier to motivate our employees harder when you're calling a implementer and telling them come on when they have other clients."

6.5.3 Takeaways

The interviews demonstrated pros and cons to both third-party and in-house implementation models for commercial programs, as summarized below.

For Cascade, some key considerations in contemplating a transition to in-house implementation include the following.

- Does Cascade have the staffing, both in terms of technical expertise and managerial capacity, to self-run the C&I programs? The issue of technical expertise may be particularly of consequence when considering custom projects which may include complex measures and savings calculations.
- Would Cascade be able to effectively replace the implementation contractor's "boots on the ground" outreach, or could the program go without it? This is an important consideration given Cascades non-contiguous service area. While survey respondents suggest that this outreach is not driving program awareness, interviewed trade allies view was that customers are generally not aware of the programs and increased awareness may help mitigate skepticism about the program rebates.
- Do staffing projections and other cost considerations suggest that in-house implementation would allow Cascade to reduce its program delivery costs? Consideration of the costs should include the resources the implementation contractor may provide to support program infrastructure such as data tracking systems that would need to be replaced by Cascade.
- Can Cascade's implementer bring knowledge from implementing programs around the country that will benefit Cascade's program design and delivery? Some considerations when thinking about this question are the extent to which the Washington codes and standard requirements may limit transfer of knowledge from other jurisdictions, the level of expertise an implementer brings to support marketing and outreach strategies, and the ability of an implementer to contribute to new measure development.
- Would Cascade have the capacity to scale up or scale down staff resources to accommodate seasonal changes in workload or changes in the portfolio scope over multiple years? Understanding what short term outsourcing could be arranged as needed to accommodate increased workloads.

Pros	Pros & Cons of In-house Implementation	Cons
	<p>Better Relationship Building: In-house implementation allows for direct interaction with customers, fostering trust and stronger relationships.</p> <p>Enhanced Control: The utility maintains complete control over program design, execution, and adjustments, ensuring alignment with company goals and customer needs.</p> <p>Brand Awareness: Direct implementation helps reinforce the utility's brand, as customers directly associate energy efficiency efforts with the utility.</p> <p>Cost-Effectiveness: Costs may be reduced through internal implementation, based on the experience of the utility respondent</p>	<p>Complexity and Coordination: Managing all aspects of the program internally requires significant coordination among various departments and staff, leading to complexity. Sufficient staff and managerial strength is a requirement.</p> <p>Workload Peaks: There can be a high workload at certain times of the year, particularly towards the end of the fiscal year when project completions peak</p>

Pros	Pros & Cons of Third-Party Implementation	Cons
<p>Specialized Expertise: Third-party implementers often bring specialized knowledge and experience, especially beneficial for more complex custom programs. A third-party implementer may be able to leverage its expertise of running programs from around the nation to help its utility clients effectively run their programs.</p> <p>Reduced Internal Burden: Outsourcing allows the utility to focus internal resources on other core functions and reduces the need for extensive internal staffing.</p> <p>Integration and Collaboration: Third-party implementers can facilitate better integration with other utilities and programs, enhancing overall program effectiveness</p>	<p>Less Direct Control: Utilities have less direct control over program details, which can lead to misalignment with utility goals or customer expectations.</p> <p>Potential for Relationship Issues: There might be challenges in building and maintaining strong customer relationships, as the implementer serves as an intermediary.</p> <p>Dependency: Relying on a third party means the utility is dependent on the performance and stability of the external implementer</p>	

6.6 COMMERCIAL PROGRAMS CONCLUSIONS AND RECOMMENDATIONS

6.6.1 Communication/Awareness

Contractors were the most common source of program awareness, although Cascade marketing and account representatives were also important sources. Forty percent of participants said they learned of the program from a contractor and a similar share learned about it from Cascade – 17.1% of customers learned about it from the Cascade website, 8.6% from a Cascade account representative, 7.1% from a Cascade mailer/bill insert. Moreover, among the 37% of program participants that viewed Cascade marketing material, about one-half considered them to be significantly or completely influential in their decision to participate.

The program implementation contractor engages in “boots on the ground” outreach as well. Although not commonly cited as a source of awareness among survey respondents, one respondent specifically mentioned a TRC representative as the source for how they learned about the program.

Despite Cascade and contractor outreach, the interviewed trade allies indicated that their customers were generally not aware of the program.

- **Recommendation 1:** Increase marketing efforts through the website, email campaigns, and mail campaigns. Given that 17.1% of participants learned about the program from the website, enhancing online visibility could be beneficial. Additional email campaigns, potentially targeted to specific business segments (if that data is available), regions, or, relative energy use may be useful.

6.6.2 Point of Entry

The application requirements were perceived favorably and do not appear to act as a barrier based on participant responses. About 96% of applicants said the application went smoothly and responses generally indicated that there were few challenges in completing the application process.

Technical assistance provided by the program helps to reduce barriers to participation. The program provided technical assistance to 37.9% of respondents. Most commonly, participants reported receiving application assistance (18.2%) or a facility assessment (12.1%).

There was little evidence of significant supply constraints presenting a barrier to participation. Four respondents reported difficulties in obtaining equipment or materials. One participant mentioned a one-week delay in receiving insulation. Two customers, both of whom installed furnaces (one also installed a water heater), experienced lengthy wait times for equipment. The fourth customer stated they needed to order their furnace.

There was some evidence that customers face barriers to implementing complete building envelope measures. Of the 11 respondents that installed insulation, 42.1% completed partial projects and cited reasons such as planning to finish later (n = 2), tenant preferences (n=2), and installation concerns (n=1). Additionally, 4 of the 5 respondents that installed new windows did not replace all windows because of cost concerns.

- **Recommendation 2:** There may be an opportunity to provide additional incentives for window replacements to encourage complete projects.

6.6.3 Participation Experience

The program contractors generally provide a high level of service, as evidenced by the positive feedback from participants. Approximately 90% of respondents indicated that contractors were timely, efficient in scheduling, and professional. However, a small number of participants reported issues: three mentioned delays, two noted poor quality of work, and one stated that not all tasks were completed.

The rebates are an important consideration for customers who purchase space heating, food service, and water heating equipment. Contractor recommendations were a top consideration for heating and water heating equipment purchasers, which highlights the importance of engaging with contractors to help them encourage customers to install efficient equipment options.

Participants who received a post-installation inspection generally viewed the process favorably.

Approximately one-third of respondents (31.4%, n=22) recalled receiving an inspection after their equipment was installed. Of these, about 90% agreed that the inspector was efficient, courteous, and scheduled the inspection within a reasonable timeframe. This indicates a positive reception towards this aspect of the program.

6.6.4 Impact/Effectiveness

Overall, respondents expressed high satisfaction with the program, the rebate process, and the installed equipment. Ninety-one percent of respondents reported being somewhat or strongly satisfied with the program overall, with no reports of dissatisfaction with the program overall. A small number of respondents (n=5) did express dissatisfaction with the time to get the rebate and the steps to get the rebates, citing reasons such as insufficient information from contractors (n=3), unresponsiveness (n=1), and delays in receiving rebates (n=1). These concerns highlight opportunities for improving contractor communication and responsiveness to further enhance participant satisfaction.

Contractors were largely satisfied with the program. All three of the interviewed contractors were satisfied with the application process. Two were satisfied with the program overall and one was neutral. None of the contractors reported dissatisfaction. All contractors said that providing annual training opportunities in the form of kick-off meetings that provided information on program changes would be beneficial. Relatedly, nine of the 68 contractors contacted for an interview indicated that they were not aware of Cascade’s program despite program data indicating their involvement in a project – a result that suggests a need to strengthen communications and contractor engagement.

- **Recommendation 3:** Enhance communications with contractors to increase engagement. Provide annual trade ally kick-off trainings to keep them informed about and engaged in the program. Part of this training can include setting expectations on how to communicate with participants about how the program works since a few customers were dissatisfied because their contractor did not provide enough information about the program. These trainings will also provide a good opportunity to get feedback on the program and current information about market conditions. Additionally, consider sending monthly or quarterly email communications to contractors providing any updates to them but with the primary goal of maintaining awareness of the program.

6.6.5 Self vs. Third Party Program Implementation

Interviews with two utilities demonstrated pros and cons to both third-party and in-house implementation models for commercial programs. For Cascade, some key considerations in contemplating a transition to in-house implementation include the following.

- Does Cascade have the staffing, both in terms of technical expertise and managerial capacity, to self-run the C&I programs? The issue of technical expertise may be particularly of consequence when considering custom projects which may include complex measures and savings calculations.
- Would Cascade be able to effectively replace the implementation contractor’s “boots on the ground” outreach, or could the program go without it? This is an important consideration given Cascades non-contiguous service area. While survey respondents suggest that this outreach is not driving program awareness, interviewed trade allies view was that customers are generally

not aware of the programs and continued outreach may help mitigate skepticism about the program rebates.

- Do staffing projections and other cost considerations suggest that in-house implementation would allow Cascade to reduce its program delivery costs? Consideration of the costs should include the resources the implementation contractor may provide to support program infrastructure such as data tracking systems that would need to be replaced by Cascade.
- Can Cascade’s implementer bring knowledge from implementing programs around the country that will benefit Cascade’s program design and delivery? Some considerations when thinking about this question are the extent to which the Washington codes and standard requirements may limit transfer of knowledge from other jurisdictions, the level of expertise an implementer brings to support marketing and outreach strategies, and the ability of an implementer to contribute to new measure development.
- Would Cascade have the capacity to scale up or scale down staff resources to accommodate seasonal changes in workload or changes in the portfolio scope over multiple years? Understanding what short term outsourcing could be arranged as needed to accommodate increased workloads.

6.6.6 Additional Offerings

Consider bundling installation of free low-cost low flow devices with customer outreach. Installing devices such as low-flow faucet aerators and pre-rinse spray valves in businesses with natural gas water heating is a way to generate additional savings for customers and an opportunity to talk about the program rebates. This can supplement Cascade’s kit offering and may be well suited to focus on the food service industry, providing an opportunity to talk about food service rebates.

Consider adding a boiler tune-up offering to help customers improve the efficiency of their existing boiler systems. Boiler tune-ups accounted for more than 50% of therm savings for Nicor Gas’s prescriptive program in 2022 and is offered by other regional utilities such as Dominion Energy in Utah and Idaho.

7 APPENDIX

In this appendix, the Evaluator provide the survey and interview guide instruments deployed during this process evaluation.

7.1 APPENDIX A: SURVEYS

7.1.1 Residential Survey

Start of Block: Introduction

Q1 Welcome! Thank you for taking this survey to tell us about your knowledge and awareness of CNGC's energy efficiency programs. Your feedback is very important to us and will help us improve programs for customers like you. This survey should take 10-15 minutes and you will receive a \$10 gift card as a thank you for your time.

Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>.

Once you have entered a response for each question, use the arrow at the bottom right of the screen to get to the next question.

End of Block: Introduction

Start of Block: Screening

Q2 Our records indicate that you received a rebate through CNGC's Cascade Energy Efficiency Program at `#{e://Field/ADDRESS}` in `#{e://Field/YEAR}`. Is that correct?

- Yes (1)
- No, I received a rebate BUT my address is incorrect (Please provide correct address) (2)

- No, I did not receive a rebate (3)

Skip To: End of Survey If Our records indicate that you received a rebate through CNGC's Cascade Energy Efficiency Program... = No, I did not receive a rebate



Q3 Program records say that you installed the following equipment or made the following improvements. Is this correct?

Display This Choice:

If FURNACE > 0

Display This Choice:

If SMART THERMOSTAT > 0

Display This Choice:

If PROGRAMMABLE THERMOSTAT > 0

Display This Choice:

If FIREPLACE > 0

Display This Choice:

If CONDENSING BOILER > 0

Display This Choice:

If RADIANT HEATING SYSTEM > 0

Display This Choice:

If TANKLESS WATER HEATER > 0

Display This Choice:

If CLOTHES WASHER > 0

Display This Choice:

If ATTIC/CEILING INSULATION > 0

Display This Choice:

If FLOOR/WALL INSULATION > 0

Display This Choice:

If DUCT SEALING > 0

Display This Choice:

If HOUSE SEALING > 0

Display This Choice:

If WINDOWS > 0

Display This Choice:

If DOORS > 0

Display This Choice:

If SMOKE DETECTOR > 0

Display This Choice:

If CO2 DETECTOR > 0

Display This Choice:

If COMBINATION SMOKE/CO2 DETECTOR > 0

Display This Choice:

If AIR PURIFIER > 0

Display This Choice:

If FURNACE TUNE UP > 0

Display This Choice:

If COOLING SYSTEM TUNE UP > 0

Display This Choice:

If WATER HEATER TUNE UP > 0

Display This Choice:

If WEATHERIZATION_IQ > 0

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

	Yes (1)	No (2)	Don't Know (98)
<p><i>Display This Choice:</i> If FURNACE > 0</p> <p>Furnace (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If SMART THERMOSTAT > 0</p> <p>Smart thermostat (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If PROGRAMMABLE THERMOSTAT > 0</p> <p>Programmable thermostat (3)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If FIREPLACE > 0</p> <p>Fireplace (4)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If CONDENSING BOILER > 0</p> <p>Condensing boiler (5)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If RADIANT HEATING SYSTEM > 0</p> <p>Radiant heating system (6)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If TANKLESS WATER HEATER > 0</p> <p>Tankless water heater (7)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If CLOTHES WASHER > 0</p> <p>Clothes washer (8)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Choice:
*If ATTIC/CEILING
INSULATION > 0*

Attic/ceiling insulation
(9)

Display This Choice:
*If FLOOR/WALL
INSULATION > 0*

Floor/wall insulation
(10)

Display This Choice:
If DUCT SEALING > 0

Duct sealing (11)

Display This Choice:
*If HOUSE SEALING >
0*

House sealing (12)

Display This Choice:
If WINDOWS > 0

Windows (13)

Display This Choice:
If DOORS > 0

Doors (14)

Display This Choice:
*If SMOKE DETECTOR
> 0*

Smoke detector (15)

Display This Choice:
If CO2 DETECTOR > 0

CO2 detector (16)

Display This Choice:
*If COMBINATION
SMOKE/CO2 DETECTOR >
0*

Combination
smoke/CO2 detector
(17)



Display This Choice:
If AIR PURIFIER > 0

Air purifier (18)



Display This Choice:
*If FURNACE TUNE UP
> 0*

Furnace tune up (19)



Display This Choice:
*If COOLING SYSTEM
TUNE UP > 0*

Cooling system tune up
(20)



Display This Choice:
*If WATER HEATER
TUNE UP > 0*

Water heater tune up
(21)



Display This Choice:
*If
WEATHERIZATION_IQ > 0*

Weatherization
measures (22)



End of Block: Screening

Start of Block: Awareness



Q4 How did you first learn about the Cascade Energy Efficiency Program? Select all that apply

- CNGC mailer (1)
 - Bill insert (2)
 - CNGC website (3)
 - Email from CNGC (4)
 - Newspaper or magazine article advertisement (5)
 - Radio or television advertisement (6)
 - Internet search (7)
 - Home show or garden show booth (8)
 - Social media (i.e. Facebook, Instagram, Twitter/X, Tik Tok, etc.) (9)
 - Contractor (10)
 - Community Action Agency (11)
 - Word of mouth (friend, family, colleague, neighbor, etc.) (12)
 - Other – please explain (98)
-
- I don't know (99)

Page Break



Q5 Why did you decide to participate in the program? Please select all that apply

- Save money on energy bills (1)
- Improve the comfort of my home (2)
- Conserve energy and/or protect the environment (3)
- Become as energy efficient as my friends or neighbors (4)
- Recommendation from a friend, family member, colleague, neighbor, etc. (5)
- Recommendation from a contractor (6)
- Recommendation from a Community Action Agency (7)
- Recommendation from CNGC (8)
- Other – please specify (96)

- I don't know (98)

Page Break



Q6 When thinking about purchasing/installing the energy efficient equipment you received through the program, what sources of information were important in your decision making? Select all that apply

- Contractor recommendation (1)
 - Utility marketing material or information (2)
 - Recommendation from a personal contact (i.e. family member, friend, neighbor, colleague, etc.) (3)
 - Other – please specify (96)
-
- None of the above (99)
 - I don't know (98)

Page Break

Q7 Did you view any Cascadia Natural Gas marketing material or advertisements about the program rebates and services before participating in the program?

- Yes (1)
- No (2)

Page Break

Display This Question:

If Did you view any Cascadia Natural Gas marketing material or advertisements about the program reba... = Yes



Q8 What materials did you view? Please select all that apply

- A Cascadia Natural Gas email (1)
 - A Cascadia Natural Gas social media post (2)
 - The Cascadia Natural Gas website (3)
 - A Cascadia Natural Gas mailing or flyer (4)
 - Something else (Please describe) (5)
-
- Don't recall (98)

Page Break

Display This Question:

*If Did you view any Cascadia Natural Gas marketing material or advertisements about the program reba... =
Yes*

Q9 To what extent did the marketing materials influence your decision to make the energy efficiency improvements or purchase the energy efficient products you got a rebate for?

- Not a all (1)
- Slightly (2)
- Moderately (3)
- Significantly (4)
- Completely (5)

Page Break

Display This Question:

If To what extent did the marketing materials influence your decision to make the energy efficiency... != Not a all

And Did you view any Cascadia Natural Gas marketing material or advertisements about the program reba... = Yes

Q10 Which aspects of the marketing materials influenced your decision to participate in the program?
Please select all that apply

- Information about the rebate offer (1)
 - Details on the benefits of the product or service (2)
 - Trust in Cascadia Natural Gas (3)
 - Clarity and appeal of the marketing presentation (4)
 - Recommendations or endorsements included in the materials (5)
 - Environmental impact or energy efficiency information (6)
 - Something else (Please describe) (7)
-

Page Break



Q11 When thinking about making energy efficiency upgrades or purchases what factors, if any, do you consider when making your decision? Select all that apply

- Price of the equipment (1)
 - Availability of equipment (2)
 - Size (3)
 - Design features (4)
 - Availability of rebates (5)
 - Availability of financing options (6)
 - Efficiency of the equipment (7)
 - Operational or maintenance costs (8)
 - Other – please specify (96)
-
- I don't know (98)

End of Block: Awareness

Start of Block: MEASURE VERIFICATION - FURNACE

Q12 In this section we will ask you about the furnace you installed.



Q13 Why did you select the model/type for your furnace? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the brand I wanted (9)
 - It had an ENERGY STAR label (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q14 Did you have any difficulty getting the efficient furnace that qualified for a rebate?

- Yes (1)
- No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient furnace that qualified for a rebate? = Yes

Q15 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (4)
-

Page Break

Q16 How long did you have to wait to get the furnace?

- Less than a week (1)
 - 1-2 weeks (2)
 - 3-4 weeks (3)
 - More than a month (4)
-

Page Break

Q17 Did you replace an older furnace?

- Yes (1)
- No (2)

Skip To: Q22 If Did you replace an older furnace? = No

Page Break



Q18 Did the replaced furnace still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q19 How old was your furnace when you replaced it? Number of years:

Page Break

Display This Question:

If Did the replaced furnace still work when you replaced it? = Yes

Q20 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your furnace?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break



Q21 What type of fuel did your old furnace or heating system use?

- Electricity (1)
- Gas (2)
- Other (please describe) (96) _____
- I don't know (98)

Page Break

Q22 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new furnace?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q23 Is the new furnace that you received a rebate for currently installed and working?

	Yes (2)	No (4)	Don't Know (98)
The furnace is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The furnace is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - FURNACE

Start of Block: MEASURE VERIFICATION - SMART THERMOSTAT

Q24 In this section we will ask you about the smart thermostat you installed.

Q25 Why did you select the model/type for your smart thermostat? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q26 Was this thermostat a new installation or did you replace existing equipment?

- New installation – no previous thermostat (1)
- Replaced a different smart thermostat (wifi connected) (2)
- Replaced a programmable thermostat (3)
- Replaced a standard thermostat (4)
- Other: (please describe) (96) _____
- I don't know (98)

Page Break



Q27 Does the smart thermostat control a central cooling system, a central heating system, or both?

- Central cooling system (1)
- Central heating system (2)
- Both cooling and heating systems (3)
- Don't know (98)

Page Break

Display This Question:

If Does the smart thermostat control a central cooling system, a central heating system, or both? = Central heating system

Or Does the smart thermostat control a central cooling system, a central heating system, or both? = Both cooling and heating systems



Q28 What type of central heating system do you have?

- Central furnace (1)
- Heat pump (2)
- Other (Please specify) (96) _____
- Don't know (98)

Page Break

Display This Question:

If What type of central heating system do you have? = Heat pump

Or What type of central heating system do you have? = Other (Please specify)



Q29 What is the main fuel used by the central heating system?

- Electricity (1)
- Natural Gas (2)
- Propane (3)
- Something else (Please specify) (4)

- Don't know (98)

Page Break



Q30 Is the new thermostat system that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't Know (98)
The thermostat is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The thermostat is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - SMART THERMOSTAT

Start of Block: MEASURE VERIFICATION - PROGRAMMABLE THERMOSTAT

Q31 In this section we will ask you about the programmable thermostat you installed.

Q32 Why did you select the model/type for your programmable thermostat? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break



Q33 Was this thermostat a new installation or did you replace existing equipment?

- New installation – no previous thermostat (1)
- Replaced a smart thermostat (wifi connected) (2)
- Replaced a different programmable thermostat (3)
- Replaced a previous standard thermostat (4)
- Other - (please describe) (96) _____
- I don't know (98)

Page Break



Q34 Does the programmable thermostat control a central cooling system, a central heating system, or both?

- Central cooling system (1)
- Central heating system (2)
- Both cooling and heating systems (3)
- Don't know (98)

Page Break

Display This Question:

If Does the programmable thermostat control a central cooling system, a central heating system, or b... = Central heating system

Or Does the programmable thermostat control a central cooling system, a central heating system, or b... = Both cooling and heating systems



Q35 What type of central heating system do you have?

- Central furnace (1)
- Heat pump (2)
- Other (Please specify) (3) _____
- Don't know (98)

Page Break

Display This Question:

If What type of central heating system do you have? = Heat pump

Or What type of central heating system do you have? = Other (Please specify)



Q36 What is the main fuel used by the central heating system?

- Electricity (1)
- Natural Gas (2)
- Propane (3)
- Something else (Please specify) (4)

- Don't know (98)

Page Break



Q37 Is the new programmable thermostat system that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't Know (3)
The programmable thermostat is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The programmable thermostat is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - PROGRAMMABLE THERMOSTAT

Start of Block: MEASURE VERIFICATION - FIREPLACE

Q38 In this section we will ask you about the fireplace you installed.



Q39 Why did you select the model/type for your fireplace? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q40 Did you have any difficulty getting the efficient fireplace that qualified for a rebate?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient fireplace that qualified for a rebate? = Yes

Q41 What was the primary difficulty you had?

It was unavailable, needed to be ordered (1)

It took a long time to get it delivered (2)

It was hard to find a contractor (3)

Something else (Please describe) (4)

Page Break

Q42 How long did you have to wait to get the fireplace?

Less than a week (1)

1-2 weeks (2)

3-4 weeks (3)

More than a month (4)

Page Break

Q43 Is the fireplace you installed the primary way you heat your home or a secondary way to heat your home?

- Primary (1)
- Secondary (2)

Page Break

Q44 Did the new fireplace replace another one?

- Yes (1)
- No (2)

Skip To: Q46 If Did the new fireplace replace another one? = No

Page Break



Q45 What type of fireplace did you replace?

- Natural gas only (1)
- Natural gas and wood (2)
- Wood burning only (3)
- Propane or propane and wood (4)
- Electric (5)
- I don't know (98)

Page Break

Q46 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new fireplace?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q47 Is the new fireplace that you received a rebate for currently installed and working?

	Yes (1)	No (3)	Don't know (4)
The fireplace is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fireplace is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - FIREPLACE

Start of Block: MEASURE VERIFICATION - RADIANT HEATING

Q48 In this section we will ask you about the radiant heating system you installed.



Q49 Why did you select the model/type for your radiant heating system? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the brand I wanted (9)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q50 Did you have any difficulty getting the efficient radiant heating system that qualified for a rebate?

- Yes (1)
- No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient radiant heating system that qualified for a reb... = Yes



Q51 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (96)
-

Page Break

Q52 How long did you have to wait to get the radiant heating system?

- Less than a week (1)
 - 1-2 weeks (2)
 - 3-4 weeks (3)
 - More than a month (4)
-

Page Break

Q53 Did you replace an older radiant heating system?

- Yes (1)
- No (2)

Skip To: Q58 If Did you replace an older radiant heating system? = No

Page Break



Q54 Was the replaced radiant heating system still working and not leaking when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q55 How old was your radiant heating system when you replaced it? Number of years

Page Break

Display This Question:

If Was the replaced radiant heating system still working and not leaking when you replaced it? = Yes

Q56 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your furnace?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break



Q57 What type of fuel did your old radiant heating system use?

- Electricity (1)
- Gas (2)
- Oil (3)
- Propane (4)
- Other (please describe) (96) _____
- I don't know (98)

Page Break

Q58 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new gas radiant heating?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q59 Is the new radiant heating system that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The radiant heating system is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The radiant heating system is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - RADIANT HEATING

Start of Block: MEASURE VERIFICATION - CONDENSING BOILER

Q60 In this section we will ask you about the Condensing Boiler you installed.



Q61 Why did you select the model/type for your condensing boiler? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the brand I wanted (9)
 - It had an ENERGY STAR label (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q62 Did you have any difficulty getting the efficient condensing boiler that qualified for a rebate?

- Yes (1)
- No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient condensing boiler that qualified for a rebate? = Yes



Q63 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (96)
-

Page Break

Q64 How long did you have to wait to get the condensing boiler?

- Less than a week (1)
- 1-2 weeks (2)
- 3-4 weeks (3)
- More than a month (4)

Page Break

Q65 Did the new boiler replace another boiler?

Yes (1)

No (2)

Skip To: Q70 If Did the new boiler replace another boiler? = No

Page Break



Q66 Did the replaced boiler still work when you replaced it?

Yes (1)

No (2)

I don't know (98)

Page Break



Q67 How old was your boiler when you replaced it? Number of years:

Page Break

Display This Question:

If Did the replaced boiler still work when you replaced it? = Yes

Q68 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your boiler?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break



Q69 What type of fuel did your old boiler use?

- Electricity (1)
- Gas (2)
- Oil (3)
- Propane (4)
- Other (please describe) (5) _____
- I don't know (98)

Page Break

Q70 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new gas condensing boiler?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q71 Is the new condensing boiler that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The condensing boiler is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The condensing boiler is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - CONDENSING BOILER

Start of Block: MEASURE VERIFICATION - TANKLESS WATER HEATER

Q72 In this section we will ask you about the tankless water heater you installed.



73 Why did you select the model/type for your water heater? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the brand I wanted (9)
 - It had an ENERGY STAR label (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q74 Did you have any difficulty getting the efficient tankless water heater that qualified for a rebate?

- Yes (1)
- No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient tankless water heater that qualified for a rebate? = Yes



Q75 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (96)
-

Page Break

Q76 How long did you have to wait to get the tankless water heater?

- Less than a week (1)
 - 1-2 weeks (2)
 - 3-4 weeks (3)
 - More than a month (4)
-

Page Break

Q77 Did you replace a water heater or was this a new installation?

- Replaced an old water heater (1)
- New installation (2)

Skip To: Q83 If Did you replace a water heater or was this a new installation? = New installation

Page Break

Q78 What type of water heater did you replace?

- Tankless water heater (1)
- Tank water heater (2)

Page Break



Q79 Did the replaced water heater still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q80 How old was your water heater when you replaced it? Number of years:

Page Break

Display This Question:

If Did the replaced water heater still work when you replaced it? = Yes

Q81 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your water heater?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break



Q82 What type of fuel did your old water heater use?

- Electricity (1)
- Gas (2)
- Oil (3)
- Propane (4)
- Other (please describe) (5) _____
- I don't know (98)

Page Break

Q83 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new gas water heater?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q84 Is the new water heater that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The water heater is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The water heater is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - TANKLESS WATER HEATER

Start of Block: MEASURE VERIFICATION - CLOTHES WASHER

Q85 In this section we will ask you about the ENERGY STAR clothes washer you installed.



Q86 Why did you select the model/type for your clothes washer? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q87 Did you have any difficulty getting the efficient clothes washer that qualified for a rebate?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient clothes washer that qualified for a rebate? = Yes

Q88 What was the primary difficulty you had?

It was unavailable, needed to be ordered (1)

It took a long time to get it delivered (2)

It was hard to find a contractor (3)

Something else (Please describe) (4)

Page Break

Q89 How long did you have to wait to get the clothes washer?

Less than a week (1)

1-2 weeks (2)

3-4 weeks (3)

More than a month (4)

Page Break

Q90 Did you replace a clothes washer or was this a new installation?

- Replaced a clothes washer (1)
- New installation (2)

Skip To: Q94 If Did you replace a clothes washer or was this a new installation? = New installation

Page Break



Q91 Did the old, replaced clothes washer still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q92 How old was your clothes washer when you replaced it? Number of years:

Page Break

Display This Question:

If Did the old, replaced clothes washer still work when you replaced it? = Yes

Q93 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your clothes washer?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break

Q94 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new clothes washer?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q95 Is the new clothes washer that you received a rebate for currently installed and working?

	yes (1)	No (2)	Don't know (98)
The clothes washer is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The clothes washer is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q96 Did you buy a new clothes dryer when you bought the new clothes washer?

- Yes (1)
- No, only bought the clothes washer (2)

Page Break

Display This Question:

If Did you buy a new clothes dryer when you bought the new clothes washer? = Yes



Q97 Is the new clothes dryer an ENERGY STAR certified dryer?

- Yes (1)
- No (2)
- I don't know (98)

End of Block: MEASURE VERIFICATION - CLOTHES WASHER

Start of Block: MEASURE VERIFICATION - BUILDING ENVELOPE

Q98 Now we're going to ask questions about the various building envelope measures you received.

Display This Question:

*If Program records say that you installed the following equipment or made the following improvements... =
Windows [Yes]*



Q99 For the energy efficient windows project that you got the rebate for, did you replace all the single pane windows in the building with energy efficient windows?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the energy efficient windows project that you got the rebate for, did you replace all the sin... = No



Q100 Why did you not replace all the single pane windows? Select all that apply

- Budget constraints (1)
- Structural or architectural restrictions (2)
- Plan to replace them in future phases (3)
- Limited availability of suitable replacements (4)
- Historical preservation considerations (5)
- Other priorities in the building renovation (6)
- Tenant or occupant preferences (7)
- Lack of perceived benefit for all windows (8)
- Other (Please describe) (96)

Page Break

Display This Question:

*If Program records say that you installed the following equipment or made the following improvements... =
Doors [Yes]*



Q101 For the energy efficient exterior doors project that you got the rebate for, did you replace all the exterior doors in the house with energy efficient doors?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the energy efficient exterior doors project that you got the rebate for, did you replace all... = No



Q102 Why did you not replace all the exterior doors? Select all that apply

- Budget constraints (1)
 - Structural or architectural restrictions (2)
 - Plan to replace them in future phases (3)
 - Limited availability of suitable replacements (4)
 - Historical preservation considerations (5)
 - Other priorities in the building renovation (6)
 - Tenant or occupant preferences (7)
 - Lack of perceived benefit for all doors (8)
 - Other (Please describe) (96)
-

Page Break

Display This Question:

If Program records say that you installed the following equipment or made the following improvements... = Attic/ceiling insulation [Yes]



Q103 For the attic insulation project, did you insulate all of the building's attic space?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the attic insulation project, did you insulate all of the building's attic space? = No



Q104 Why did you choose to not insulate all of the attic space? Select all that apply

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other - (please specify) (10)
-

Page Break

Display This Question:

If Program records say that you installed the following equipment or made the following improvements... = Floor/wall insulation [Yes]



Q105 For the wall and floor insulation project, did you insulate all of the building's exterior walls and floor space?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the wall and floor insulation project, did you insulate all of the building's exterior walls... = No



Q106 Why did you choose to not insulate all of the exterior walls and floor space? Select all that apply

- Budget constraints (1)
- Insulation not deemed necessary or effective in those areas (2)
- Structural or architectural limitations (3)
- Plans to insulate in future phases (4)
- Concerns about disruption during installation (5)
- Limited availability of suitable insulation materials (6)
- Tenant or occupant preferences (7)
- Other renovation priorities (8)
- Uncertainty about the benefits of additional insulation (9)
- Other reasons (please specify) (98)

Page Break

Display This Question:

*If Program records say that you installed the following equipment or made the following improvements... =
Duct sealing [Yes]*



Q107 For the duct sealing project, did you seal all of the building's ducts?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the duct sealing project, did you seal all of the building's ducts? = No



Q108 Why did you choose to not seal all of the ducts? Select all that apply

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during sealing (5)
 - Limited availability of suitable sealing materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional sealing (9)
 - Other reasons (please specify) (98)
-

End of Block: MEASURE VERIFICATION - BUILDING ENVELOPE

Start of Block: MEASURE VERIFICATION - FURNACE TUNE UP

Q111 In this section we will ask you about the furnace tune up you received.



Q112 Prior to participating in the program, did you have regular furnace tune-ups conducted by a heating and cooling contractor?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:

If Prior to participating in the program, did you have regular furnace tune-ups conducted by a heati... = Yes



Q113 Did you have those tune-ups completed as part of a maintenance agreement or plan?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q114 Did the same company that completed the tune-up for this program perform your previous furnace tune-ups?

- Yes (1)
- No (2)
- Did not have any previous tune-ups (3)
- I don't know (98)

Page Break

Display This Question:

If Prior to participating in the program, did you have regular furnace tune-ups conducted by a heati... = Yes



Q115 Approximately how often do you get a furnace tune-up?

- At least every 6 months (1)
- Once a year (2)
- Once every 2 years (3)
- Once every 2-5 years (4)
- Once every 5 years or more (5)
- Only when needed (6)
- I don't know (98)

Page Break



Q116 Not including the tune-up, you received as a part of the Cascade Energy Efficiency Program, when, if ever, was your last furnace tune-up?

- Less than one year ago (1)
- 1-2 years ago (2)
- 3-5 years ago (3)
- More than 5 years ago (4)
- Never (5)
- I don't know (98)

End of Block: MEASURE VERIFICATION - FURNACE TUNE UP

Start of Block: MEASURE VERIFICATION - COOLING SYSTEM TUNE UP

Q117 In this section we will ask you about the cooling system tune up you received.



Q118 Prior to participating in the program, did you have regular cooling system tune-ups conducted by a heating and cooling contractor?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:

If Prior to participating in the program, did you have regular cooling system tune-ups conducted by... = Yes



Q119 Did you have those tune-ups completed as part of a maintenance agreement or plan?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q120 Did the same company that completed the tune-up for this program perform your previous cooling system tune-ups?

- Yes (1)
- No (2)
- Did not have any previous tune-ups (3)
- I don't know (98)

Page Break

Display This Question:

If Prior to participating in the program, did you have regular cooling system tune-ups conducted by... = Yes



Q121 Approximately how often do you get a cooling system tune-up?

- At least every 6 months (1)
- Once a year (2)
- Once every 2 years (3)
- Once every 2-5 years (4)
- Once every 5 years or more (5)
- Only when needed (6)
- I don't know (98)

Page Break



Q122 Not including the tune-up, you received as a part of the Cascade Energy Efficiency Program, when, if ever, was your last cooling system tune-up?

- Less than one year ago (1)
- 1-2 years ago (2)
- 3-5 years ago (3)
- More than 5 years ago (4)
- Never (5)
- I don't know (98)

End of Block: MEASURE VERIFICATION - COOLING SYSTEM TUNE UP

Start of Block: MEASURE VERIFICATION - WATER HEATER TUNE UP

Q123 In this section we will ask you about the water heater tune up you received.



Q124 Prior to participating in the program, did you have regular water heater tune-ups conducted by a contractor?

- Yes (1)
 - No (2)
 - I don't know (98)
-

Page Break

Display This Question:

If Prior to participating in the program, did you have regular water heater tune-ups conducted by a... = Yes



Q125 Did you have those tune-ups completed as part of a maintenance agreement or plan?

- Yes (1)
 - No (2)
 - I don't know (98)
-

Page Break



Q126 Did the same company that completed the tune-up for this program perform your previous water heater tune-ups?

- Yes (1)
- No (2)
- Did not have any previous tune-ups (3)
- I don't know (98)

Page Break

Display This Question:

If Prior to participating in the program, did you have regular water heater tune-ups conducted by a... = Yes



Q127 Approximately how often do you get a water heater tune-up?

- At least every 6 months (1)
- Once a year (2)
- Once every 2 years (3)
- Once every 2-5 years (4)
- Once every 5 years or more (5)
- Only when needed (6)
- I don't know (98)

Page Break



Q128 Not including the tune-up, you received as a part of the Cascade Energy Efficiency Program, when, if ever, was your last water heater tune-up?

- Less than one year ago (1)
- 1-2 years ago (2)
- 3-5 years ago (3)
- More than 5 years ago (4)
- Never (5)
- I don't know (98)

End of Block: MEASURE VERIFICATION - WATER HEATER TUNE UP

Start of Block: CONTRACTOR

Q129 In this section we will ask you about your experience with the contractor who installed your equipment.



Q130 Did you use a contractor to install the equipment or make the home improvements that you received a rebate for?

- Yes, used a contractor (1)
- No (2)
- Don't know (98)

Skip To: End of Block If Did you use a contractor to install the equipment or make the home improvements that you received... != Yes, used a contractor

Page Break



Q131 How did you find the contractor who implemented the measure(s) you installed through the Cascade Energy Efficiency Program?

- CNGC website (1)
- A program representative referred me to a contractor (2)
- The contractor was someone you've worked with before (3)
- Through a personal contact (friend, family, colleague, neighbor, etc.) (4)
- Internet search (5)
- Other – please describe (96) _____
- I don't know (98)

Page Break



Q132 Did you receive the rebate from Cascade Natural Gas or did it go to the contractor you worked with?

- I or someone else in my household received the rebate (1)
- The rebate was paid to the contractor (2)
- I am not aware that I received a rebate (3)
- I don't know (98)

Page Break

Display This Question:

If Did you receive the rebate from Cascade Natural Gas or did it go to the contractor you worked with? = The rebate was paid to the contractor



Q133 Did the contractor show you the discount or tell you about the rebate you received through the Cascade Energy Efficiency Program?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:
 If Did you use a contractor to install the equipment or make the home improvements that you received... = Yes, used a contractor



Q134 Please rate your agreement with the following statements regarding your experience with your contractor?

	Strongly Disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
The contractor was courteous and professional (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work was scheduled in a reasonable amount of time (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to complete the work was reasonable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:
 If Please rate your agreement with the following statements regarding your experience with your cont... = Strongly Disagree
 Or Please rate your agreement with the following statements regarding your experience with your cont... = Somewhat disagree

Q135 You indicated some disagreement, why do you disagree?

Page Break



Q136 In addition to the work your contractor completed on the measure(s) installed through the program, did the contractor identify other energy saving opportunities in your house?

- Yes (1)
 - No (2)
 - I don't know (98)
-

Page Break

Display This Question:

If In addition to the work your contractor completed on the measure(s) installed through the program... = Yes

Q137 What types of energy saving opportunities did your contractor suggest?

End of Block: CONTRACTOR

Start of Block: APPLICATION PROCESS



Q138 Did you complete the application for the rebate you received from Cascadia Natural Gas?

- Yes (1)
- No (2)
- I don't know (98)

Skip To: End of Block If Did you complete the application for the rebate you received from Cascadia Natural Gas? != Yes

Page Break

Display This Question:

If Did you complete the application for the rebate you received from Cascadia Natural Gas? = Yes

Q139 How clear was the information on how to complete and submit the application ?

- Not at all clear (1)
- Somewhat clear (2)
- Very clear (3)

Page Break

Display This Question:

If How clear was the information on how to complete and submit the application ? != Very clear



Q140 What was unclear about how to complete the application? Please select all that apply

- The information on the energy efficiency improvements you were getting a rebate for (1)
 - The information needed about my home (2)
 - The information on what qualified for the rebate (3)
 - How to submit the application or what the process was for getting the rebate (4)
 - Something else (please describe) (96)
-

End of Block: APPLICATION PROCESS

Start of Block: SATISFACTION

Q141 In this section we will ask you about your overall satisfaction with the program.



Q142 Please rank the following reasons you might consider when making improvement to your home in order of importance to you:

1. _____ Increasing home's energy efficiency (1)
 2. _____ Improve your comfort in your home (2)
 3. _____ Improve your health and safety in your home (3)
-

Page Break

Q143 How trustworthy is Cascade Natural Gas as a source of information about saving energy in your home?

- Not at all trustworthy (1)
 - Somewhat trustworthy (2)
 - Moderately trustworthy (3)
 - Very trustworthy (4)
 - Extremely trustworthy (5)
-

Page Break

Q144 Please rate your level of satisfaction with the following

	Not at all satisfied (1)	Somewhat dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat satisfied (4)	Very satisfied (5)
The amount of the rebate you received (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The process to fill out the rebate application (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to receive your rebate (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your experience with the program overall (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CNGC as your natural gas provider (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If Please rate your level of satisfaction with the following [Not at all satisfied] (Count) != 0

And Please rate your level of satisfaction with the following [Somewhat dissatisfied] (Count) != 0

Q145 You expressed some dissatisfaction, why are you dissatisfied?

Page Break

Q146 Would you say that your participation in the Cascade Energy Efficiency Program has?

- Greatly decreased your satisfaction with Cascade Natural Gas (1)
- Somewhat decreased your satisfaction with Cascade Natural Gas (2)
- Did not affect your satisfaction with Cascade Natural Gas (3)
- Somewhat increased your satisfaction with Cascade Natural Gas (4)
- Greatly increased your satisfaction with Cascade Natural Gas (5)

Page Break

Q147 How likely are you to recommend the Cascade Energy Efficiency Program to others?

- Not at all likely (1)
- Somewhat likely (2)
- Moderately likely (3)
- Very likely (4)
- Extremely likely (5)

End of Block: SATISFACTION

Start of Block: DEMOGRAPHICS



Q148 Do you rent or own your home?

- Own (1)
- Rent (2)
- Own and rent to someone else (3)
- Prefer not to answer (98)

Page Break



Q149 Which of the following best describes your home?

- Single-family home (1)
- Manufactured or mobile home (2)
- Duplex or townhome (3)
- Apartment or condominium (4)
- Other – please specify (96) _____
- Prefer not to answer (98)

Page Break



Q150 Approximately when was your home built?

- Before 1960 (1)
- 1960 to 1979 (2)
- 1980 to 1989 (3)
- 1990 to 1999 (4)
- 2000 to 2009 (5)
- 2010 or later (6)
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q151 About how many square feet is your home? If you're unsure, an estimate is okay.

- Less than 1,000 square feet (1)
- 1,000 to 1,999 square feet (2)
- 2,000 to 2,999 square feet (3)
- 3,000 to 3,999 square feet (4)
- 4,000 square feet or more (5)
- I don't know (98)
- Prefer not to answer (96)

Page Break



Q152 What is the main fuel used for heating your home?

- Natural gas (1)
- Electricity (2)
- Propane (3)
- Don't heat the home (4)
- Other – please specify (96) _____
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q153 What is your age?

- 8 – 24 (1)
- 25 – 34 (2)
- 35 – 44 (3)
- 45 – 54 (4)
- 55 – 64 (5)
- 65 – 74 (6)
- 75+ (7)
- Prefer not to answer (99)

Page Break



Q154 Which of the following best describes you? Please select all that apply

- American Indian or Alaska Native (1)
 - East Asian (e.g. Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese, etc.) (2)
 - South Asian (i.e. Asian Indian, Pakistani, Bangladeshi, etc.) (3)
 - Black or African American (4)
 - Hispanic, Latino, or Spanish origin (5)
 - Native Hawaiian or other Pacific Islander (6)
 - Middle Eastern or North African (7)
 - White or Caucasian (8)
 - Some other race, ethnicity, or origin – please specify (96)
-
- Prefer not to answer (99)

Page Break



Q155 What is the highest level of education you have completed?

- High school graduate/GED (1)
- Associates degree, vocational/technical school, or some college (2)
- Four-year college degree (3)
- Graduate or professional degree (4)
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q156 Which of the following best describes your household annual income?

- Less than \$10,000 (1)
- \$10,000 to less than \$20,000 (2)
- \$20,000 to less than \$30,000 (3)
- \$30,000 to less than \$40,000 (4)
- \$40,000 to less than \$50,000 (5)
- \$50,000 to less than \$75,000 (6)
- \$75,000 to less than \$100,000 (7)
- \$100,000 to less than \$150,000 (8)
- \$150,000 to less than \$200,000 (9)
- \$200,000 or more (10)
- I don't know (98)
- Prefer not to answer (99)

End of Block: DEMOGRAPHICS

Start of Block: CLOSING

Q157 Thank you for taking the time today to complete this survey. As stated in the email, we are providing a \$10 electronic gift card as a thank you for your responses. You should receive this gift card in

the next 3-5 business days. The email address we have on file for you is [\\${e://Field/EMAIL}](#), please confirm this information.

- Yes, please send my electronic gift card to the above email address (1)
 - No, please send my electronic gift card to the following email address (2)
-

7.1.2 Residential Low Income Survey

Start of Block: Introduction

Q1 Welcome! Thank you for taking this survey to tell us about your knowledge and awareness of CNGC's energy efficiency programs. Your feedback is very important to us and will help us improve programs for customers like you. This survey should take 10-15 minutes and you will receive a \$10 gift card as a thank you for your time.

Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>.

Once you have entered a response for each question, use the arrow at the bottom right of the screen to get to the next question.

End of Block: Introduction

Start of Block: Screening

Q2 Our records indicate that you received a rebate through CNGC's Cascade Energy Efficiency Program at [\\${e://Field/ADDRESS}](#) in [\\${e://Field/YEAR}](#) for a variety of weatherization measures. Weatherization measures include things like duct sealing, attic/ceiling insulation, house sealing, floor/wall insulation, etc.

Is that correct?

- Yes (1)
- No, I received a rebate BUT my address is incorrect (Please provide correct address) (2)

- No, I did not receive a rebate (3)

Skip To: End of Survey If Our records indicate that you received a rebate through CNGC's Cascade Energy Efficiency Program... = No, I did not receive a rebate

End of Block: Screening

Start of Block: Awareness



Q4 How did you first learn about the Cascade Energy Efficiency Program? Select all that apply

- CNGC mailer (1)
 - Bill insert (2)
 - CNGC website (3)
 - Email from CNGC (4)
 - Newspaper or magazine article advertisement (5)
 - Radio or television advertisement (6)
 - Internet search (7)
 - Home show or garden show booth (8)
 - Social media (i.e. Facebook, Instagram, Twitter/X, Tik Tok, etc.) (9)
 - Contractor (10)
 - Community Action Agency (11)
 - Word of mouth (friend, family, colleague, neighbor, etc.) (12)
 - Other – please explain (98)
-
- I don't know (99)

Page Break



Q5 Why did you decide to participate in the program? Please select all that apply

- Save money on energy bills (1)
 - Improve the comfort of my home (2)
 - Conserve energy and/or protect the environment (3)
 - Become as energy efficient as my friends or neighbors (4)
 - Recommendation from a friend, family member, colleague, neighbor, etc. (5)
 - Recommendation from a contractor (6)
 - Recommendation from a Community Action Agency (7)
 - Recommendation from CNGC (8)
 - Other – please specify (96)
-
- I don't know (98)

Page Break



Q6 When thinking about purchasing/installing the energy efficient equipment you received through the program, what sources of information were important in your decision making? Select all that apply

- Contractor recommendation (1)
 - Utility marketing material or information (2)
 - Recommendation from a personal contact (i.e. family member, friend, neighbor, colleague, etc.) (3)
 - Other – please specify (96)
-
- None of the above (99)
 - I don't know (98)

Page Break

Q7 Did you view any Cascade Natural Gas marketing material or advertisements about the program rebates and services before participating in the program?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... =
Yes



Q8 What materials did you view? Please select all that apply

- A Cascade Natural Gas email (1)
 - A Cascade Natural Gas social media post (2)
 - The Cascade Natural Gas website (3)
 - A Cascade Natural Gas mailing or flyer (4)
 - Something else (Please describe) (5)
-
- Don't recall (98)

Page Break

Display This Question:

If Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... = Yes

Q9 To what extent did the marketing materials influence your decision to make the energy efficiency improvements or purchase the energy efficient products you got a rebate for?

- Not a all (1)
- Slightly (2)
- Moderately (3)
- Significantly (4)
- Completely (5)

Page Break

Display This Question:

If To what extent did the marketing materials influence your decision to make the energy efficiency... != Not a all

And Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... = Yes

Q10 Which aspects of the marketing materials influenced your decision to participate in the program?
Please select all that apply

- Information about the rebate offer (1)
 - Details on the benefits of the product or service (2)
 - Trust in Cascade Natural Gas (3)
 - Clarity and appeal of the marketing presentation (4)
 - Recommendations or endorsements included in the materials (5)
 - Environmental impact or energy efficiency information (6)
 - Something else (Please describe) (7)
-

Page Break



Q11 When thinking about making energy efficiency upgrades or purchases what factors, if any, do you consider when making your decision? Select all that apply

- Price of the equipment (1)
 - Availability of equipment (2)
 - Size (3)
 - Design features (4)
 - Availability of rebates (5)
 - Availability of financing options (6)
 - Efficiency of the equipment (7)
 - Operational or maintenance costs (8)
 - Other – please specify (96)
-
- I don't know (98)

End of Block: Awareness

Start of Block: CONTRACTOR

Q129 In this section we will ask you about your experience with the contractor who installed your equipment.



Q130 Did you use a contractor to install the equipment or make the home improvements that you received a rebate for?

- Yes, used a contractor (1)
- No (2)
- Don't know (98)

Skip To: End of Block If Did you use a contractor to install the equipment or make the home improvements that you received... != Yes, used a contractor

Page Break



Q131 How did you find the contractor who implemented the measure(s) you installed through the Cascade Energy Efficiency Program?

- CNGC website (1)
- A program representative referred me to a contractor (2)
- The contractor was someone you've worked with before (3)
- Through a personal contact (friend, family, colleague, neighbor, etc.) (4)
- Internet search (5)
- Other – please describe (96) _____
- I don't know (98)

Page Break



Q132 Did you receive the rebate from Cascade Natural Gas or did it go to the contractor you worked with?

- I or someone else in my household received the rebate (1)
- The rebate was paid to the contractor (2)
- I am not aware that I received a rebate (3)
- I don't know (98)

Page Break

Display This Question:

If Did you receive the rebate from Cascade Natural Gas or did it go to the contractor you worked with? = The rebate was paid to the contractor



Q133 Did the contractor show you the discount or tell you about the rebate you received through the Cascade Energy Efficiency Program?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:
 If Did you use a contractor to install the equipment or make the home improvements that you received... = Yes, used a contractor



Q134 Please rate your agreement with the following statements regarding your experience with your contractor?

	Strongly Disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
The contractor was courteous and professional (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work was scheduled in a reasonable amount of time (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to complete the work was reasonable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

*If Please rate your agreement with the following statements regarding your experience with your cont... =
Strongly Disagree*

*Or Please rate your agreement with the following statements regarding your experience with your cont... =
Somewhat disagree*

Q135 You indicated some disagreement, why do you disagree?

Page Break



Q136 In addition to the work your contractor completed on the measure(s) installed through the program, did the contractor identify other energy saving opportunities in your house?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:

If In addition to the work your contractor completed on the measure(s) installed through the program... = Yes

Q137 What types of energy saving opportunities did your contractor suggest?

End of Block: CONTRACTOR

Start of Block: APPLICATION PROCESS



Q138 Did you complete the application for the rebate you received from Cascade Natural Gas?

- Yes (1)
- No (2)
- I don't know (98)

Skip To: End of Block If Did you complete the application for the rebate you received from Cascade Natural Gas? != Yes

Page Break

Display This Question:

If Did you complete the application for the rebate you received from Cascade Natural Gas? = Yes

Q139 How clear was the information on how to complete and submit the application ?

- Not at all clear (1)
- Somewhat clear (2)
- Very clear (3)

Page Break

Display This Question:

If How clear was the information on how to complete and submit the application ? != Very clear



Q140 What was unclear about how to complete the application? Please select all that apply

- The information on the energy efficiency improvements you were getting a rebate for (1)
 - The information needed about my home (2)
 - The information on what qualified for the rebate (3)
 - How to submit the application or what the process was for getting the rebate (4)
 - Something else (please describe) (96)
-

End of Block: APPLICATION PROCESS

Start of Block: SATISFACTION

Q141 In this section we will ask you about your overall satisfaction with the program.



Q142 Please rank the following reasons you might consider when making improvement to your home in order of importance to you:

4. _____ Increasing home's energy efficiency (1)
 5. _____ Improve your comfort in your home (2)
 6. _____ Improve your health and safety in your home (3)
-

Page Break

Q143 How trustworthy is Cascade Natural Gas as a source of information about saving energy in your home?

- Not at all trustworthy (1)
- Somewhat trustworthy (2)
- Moderately trustworthy (3)
- Very trustworthy (4)
- Extremely trustworthy (5)

Page Break

Q144 Please rate your level of satisfaction with the following

	Not at all satisfied (1)	Somewhat dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat satisfied (4)	Very satisfied (5)
The amount of the rebate you received (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The process to fill out the rebate application (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to receive your rebate (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your experience with the program overall (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CNGC as your natural gas provider (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If Please rate your level of satisfaction with the following [Not at all satisfied] (Count) != 0

And Please rate your level of satisfaction with the following [Somewhat dissatisfied] (Count) != 0

Q145 You expressed some dissatisfaction, why are you dissatisfied?

Page Break

Q146 Would you say that your participation in the Cascade Energy Efficiency Program has?

- Greatly decreased your satisfaction with Cascade Natural Gas (1)
- Somewhat decreased your satisfaction with Cascade Natural Gas (2)
- Did not affect your satisfaction with Cascade Natural Gas (3)
- Somewhat increased your satisfaction with Cascade Natural Gas (4)
- Greatly increased your satisfaction with Cascade Natural Gas (5)

Page Break

Q147 How likely are you to recommend the Cascade Energy Efficiency Program to others?

- Not at all likely (1)
- Somewhat likely (2)
- Moderately likely (3)
- Very likely (4)
- Extremely likely (5)

End of Block: SATISFACTION

Start of Block: DEMOGRAPHICS



Q148 Do you rent or own your home?

- Own (1)
- Rent (2)
- Own and rent to someone else (3)
- Prefer not to answer (98)

Page Break



Q149 Which of the following best describes your home?

- Single-family home (1)
- Manufactured or mobile home (2)
- Duplex or townhome (3)
- Apartment or condominium (4)
- Other – please specify (96) _____
- Prefer not to answer (98)

Page Break



Q150 Approximately when was your home built?

- Before 1960 (1)
- 1960 to 1979 (2)
- 1980 to 1989 (3)
- 1990 to 1999 (4)
- 2000 to 2009 (5)
- 2010 or later (6)
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q151 About how many square feet is your home? If you're unsure, an estimate is okay.

- Less than 1,000 square feet (1)
- 1,000 to 1,999 square feet (2)
- 2,000 to 2,999 square feet (3)
- 3,000 to 3,999 square feet (4)
- 4,000 square feet or more (5)
- I don't know (98)
- Prefer not to answer (96)

Page Break



Q152 What is the main fuel used for heating your home?

- Natural gas (1)
- Electricity (2)
- Propane (3)
- Don't heat the home (4)
- Other – please specify (96) _____
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q153 What is your age?

- 8 – 24 (1)
- 25 – 34 (2)
- 35 – 44 (3)
- 45 – 54 (4)
- 55 – 64 (5)
- 65 – 74 (6)
- 75+ (7)
- Prefer not to answer (99)

Page Break



Q154 Which of the following best describes you? Please select all that apply

- American Indian or Alaska Native (1)
 - East Asian (e.g. Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese, etc.) (2)
 - South Asian (i.e. Asian Indian, Pakistani, Bangladeshi, etc.) (3)
 - Black or African American (4)
 - Hispanic, Latino, or Spanish origin (5)
 - Native Hawaiian or other Pacific Islander (6)
 - Middle Eastern or North African (7)
 - White or Caucasian (8)
 - Some other race, ethnicity, or origin – please specify (96)
-
- Prefer not to answer (99)

Page Break



Q155 What is the highest level of education you have completed?

- High school graduate/GED (1)
- Associates degree, vocational/technical school, or some college (2)
- Four-year college degree (3)
- Graduate or professional degree (4)
- I don't know (98)
- Prefer not to answer (99)

Page Break



Q156 Which of the following best describes your household annual income?

- Less than \$10,000 (1)
- \$10,000 to less than \$20,000 (2)
- \$20,000 to less than \$30,000 (3)
- \$30,000 to less than \$40,000 (4)
- \$40,000 to less than \$50,000 (5)
- \$50,000 to less than \$75,000 (6)
- \$75,000 to less than \$100,000 (7)
- \$100,000 to less than \$150,000 (8)
- \$150,000 to less than \$200,000 (9)
- \$200,000 or more (10)
- I don't know (98)
- Prefer not to answer (99)

End of Block: DEMOGRAPHICS

Start of Block: CLOSING

Q157 Thank you for taking the time today to complete this survey. As stated in the email, we are providing a \$10 electronic gift card as a thank you for your responses. You should receive this gift card in

the next 3-5 business days. The email address we have on file for you is [\\${e://Field/EMAIL}](#), please confirm this information.

- Yes, please send my electronic gift card to the above email address (1)
 - No, please send my electronic gift card to the following email address (2)
-

End of Block: CLOSING

7.1.3 Residential Non-Participant Survey

Start of Block: Intro & Screening

Intro Welcome! Thanks for agreeing to provide your feedback about your experience using Cascade Natural Gas's service and programs. Your feedback is very important to us and will help us improve programs for customers like you. This survey should take about 10 minutes. Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>.

Upon completion of the survey we will collect your email address to send a \$10 electronic gift card as a token of our thanks.

To start, we have a few questions about your awareness of some of Cascade's programs and services.

Page Break

Q1 According to program records, Cascade provides gas services to your residence at [\\${e://Field/ADDRESS}](#). Is that correct?

- Yes (1)
 - Yes, but address is incorrect (please write in correct address) (2)
-
- No (3)

Skip To: End of Survey If According to program records, Cascade provides gas services to your residence at ... = No

Page Break

Q2 To the best of your knowledge have you replaced or upgraded equipment that requires gas, in the last three years? This could have been heating/cooling equipment, weatherization measures, cooking equipment, or water heating equipment?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If To the best of your knowledge have you replaced or upgraded equipment that requires gas, in the l... = Yes



Q3 What types of equipment have you upgraded in the last three years? Select all that apply

- Heating and cooling equipment (1)
- Fireplaces (106)
- Thermostat(s) (107)
- Weatherization measures (insulation, duct sealing, etc.) (108)
- Water heating equipment (109)
- Windows (110)
- Washer/dryer (111)
- Range (112)
- Other – please specify (105)

Page Break

Display This Question:

If To the best of your knowledge have you replaced or upgraded equipment that requires gas, in the I... = Yes



Q4 Did you receive an incentive from Cascade Natural Gas for any of those upgrades or services?

- Yes (1)
- No (2)
- I don't know (98)

Skip To: End of Survey If Did you receive an incentive from Cascade Natural Gas for any of those upgrades or services? = Yes

Page Break

Q5 Why haven't you participated in any of Cascade Natural Gas's programs? Select all that apply

- Did not know enough about the programs and incentives (1)
 - Energy savings from the equipment replacements or upgrades was not worth the trouble (4)
 - Too much time or trouble to receive the incentives (5)
 - Prefer not to deal with Cascade Natural Gas (6)
 - Not interested in what Cascade Natural Gas is offering (7)
 - Incentives are not high enough to offset the cost of high efficiency equipment, compared to standard efficiency equipment (8)
 - I am financially able to make the upgrades without the incentives (9)
 - Don't have the authority to participate in any of the Cascade Natural Gas programs (10)
 - Other – please specify (11)
-
- Don't know (12)

End of Block: Intro & Screening

Start of Block: Program Awareness

Q6 Before today, did you know that Cascade Natural Gas offers a **Residential Energy Efficiency Program**?

- Yes (1)
 - No (2)
 - I don't know (98)
-

Page Break

Display This Question:

If Before today, did you know that Cascade Natural Gas offers a Residential Energy Efficiency Program? = Yes



Q7 How did you learn about Cascade Natural Gas's energy efficiency program offerings? Select all that apply

- Mailed information from Cascade (1)
- Email from Cascade (2)
- Newspaper or magazine article or advertisement (3)
- Contractor (4)
- Word of mouth from a personal contact (e.g., family member, friend, neighbor, colleague, etc.) (5)
- Radio advertisement (6)
- Utility bill message (7)
- Utility website (8)
- Another website (9)
- Social media (i.e., Facebook, Instagram, Twitter, Tik Tok, etc.) (10)
- Cascade program staff (11)
- Information at a retailer (12)
- Other, please specify (13) _____
- Don't know (98)

Page Break

Display This Question:

If Before today, did you know that Cascade Natural Gas offers a Residential Energy Efficiency Program? = Yes

Q8 What programs or services were you already aware of? Select all that apply

- Incentives to replace inefficient equipment in your home (1)
- Incentives to incorporate energy efficiency into new construction designs (2)
- Incentives for heating and cooling equipment (3)
- Other – please specify (5) _____
- Don't know (6)

Page Break



Q9 Are you interested in making any energy efficiency upgrades and participating in any of Cascade Natural Gas's energy efficiency programs?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If Are you interested in making any energy efficiency upgrades and participating in any of Cascade N... = Yes



Q10 What energy efficiency upgrades or programs are you interested in? Select all that apply

- Heating/cooling equipment (1)
 - Fireplaces (99)
 - Water heating equipment (100)
 - Smart/programmable thermostats (101)
 - Efficient appliances (i.e. washer, dryer, range) (102)
 - Home weatherization (i.e. pipe wrap insulation, attic insulation, insulated door) (103)
 - Windows (104)
 - Other – please specify (96)
-
- Don't know (98)

Page Break



Q11 On a scale of 1 through 5, where 1 means “not at all interested” and 5 means “very interested”, how interested are you in participating in Cascade Natural Gas's energy efficiency programs?

- 1 – Not at all interested (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – Very interested (5)
- Don't know (98)

End of Block: Program Awareness

Start of Block: Participation Barriers



Q12 What might prevent you from participating in Cascade's programs? Select all that apply

- Don't know enough about the program (1)
 - Unlikely to replace any equipment (99)
 - Too much time or trouble required to fill out the required paperwork (100)
 - Not interested (101)
 - Other – please specify (96)
-
- Don't know (98)

Page Break

Q13 We understand that it is not always possible to make improvements and energy efficiency upgrades to your home. Which of the following best describes your authority to make decisions?

- No authority – as a renter I am not permitted to make improvements and energy efficiency upgrades (1)
- Some authority – as a renter I am permitted to make some improvements or upgrades (2)
- Full authority – I am the owner (3)
- Don't know (4)

Page Break

Q14 Are there any changes CNGC can make to its programming to encourage you to participate?

End of Block: Participation Barriers

Start of Block: End Uses



Q15 What do you feel is the largest energy consumer in your home?

- Heating/cooling equipment (1)
- Water heating equipment (99)
- Appliances (clothes washer/dryer, range, etc) (100)
- Refrigeration (101)
- Lighting (102)
- Other – please specify (96) _____
- Don't know (98)

Page Break



Q16 What type of heating system do you currently have in your home?

- Gas furnace (1)
- Gas fireplace (99)
- Heat Pump (100)
- Mini split (101)
- Electric resistance (i.e. baseboard) (102)
- Other (please specify) (105) _____
- Don't heat the home (103)
- Don't know (104)

Page Break

Display This Question:

If What type of heating system do you currently have in your home? != Electric resistance (i.e. baseboard)

And What type of heating system do you currently have in your home? != Don't heat the home

And What type of heating system do you currently have in your home? != Don't know

X→

Q17 Approximately how old is the heating system?

- Less than 10 years old (1)
- 10 to 20 years old (2)
- More than 20 years old (3)
- Don't know (98)

Page Break



Q18 When was the last time your heating system was serviced?

- Less than 1 year ago (1)
- 1 to 3 years ago (2)
- More than 3 years ago (3)
- It's never been serviced (4)
- Don't know (98)

Page Break



Q19 What type of thermostat do you use?

- Manual (1)
- Programmable (2)
- Smart thermostat (3)
- Don't know (98)

End of Block: End Uses

Start of Block: Demographics

Demos This last set of questions will help Cascade Natural Gas develop more effective programs that may best serve the needs of the community. Your answers will remain anonymous and aggregated, so no information will be linked with you or your household. You may choose "Prefer not to answer."

Page Break



Q20 Do you own or rent the home at [\\${e://Field/ADDRESS}](#)?

- Own (1)
- Rent (2)
- Own and rent to someone else (3)
- Don't know (98)
- Prefer not to answer (99)

Page Break

Display This Question:

If Do you own or rent the home at \${e://Field/ADDRESS}? = Own

Or Do you own or rent the home at \${e://Field/ADDRESS}? = Own and rent to someone else



Q21 When was your home built?

- Before 1950 (1)
- 1950 to 1959 (2)
- 1960 to 1969 (3)
- 1970 to 1979 (4)
- 1980 to 1989 (5)
- 1990 to 1999 (6)
- 2000 to 2009 (7)
- 2010 to 2019 (8)
- 2020 to Present (9)
- Don't know (98)
- Prefer not to answer (99)

Page Break



Q22 What is the main fuel used to heat your home?

- Electricity (1)
- Natural Gas (2)
- Propane (3)
- Pellet/wood stove (100)
- Other, please specify (4) _____
- I don't heat my home (5)
- Don't know (98)
- Prefer not to answer (99)

Page Break

Q23 Which best describes your home?

- Single-family house detached (1)
- Single-family house attached to one or more other houses (e.g., duplex, condominium, townhouse, etc.) (7)
- Mobile or manufactured home (8)
- Apartment with 2 to 4 units (9)
- Apartment with 5+ units (10)
- Other (please specify) (11) _____
- I don't know (12)
- Prefer not to answer (13)

Page Break



Q24 Including yourself, how many people live in your house year-round?

- 1 person (1)
- 2 people (2)
- 3 people (3)
- 4 people (4)
- 5 people (5)
- 6 people (6)
- 7 people (7)
- 8 or more people (8)
- Prefer not to answer (99)

Page Break

Q25 Including all money earned from wages, salaries, tips, commissions, workers' compensation, unemployment insurance, child support, or other sources, about how much was your total annual household income before taxes in 2023?

- Less than \$10,000 (1)
- \$10,000 to \$19,999 (4)
- \$20,000 to \$29,999 (5)
- \$30,000 to \$39,999 (6)
- \$40,000 to \$49,999 (7)
- \$50,000 to \$74,999 (8)
- \$75,000 to \$99,999 (9)
- \$100,000 to \$149,999 (10)
- \$150,000 to \$199,999 (11)
- \$200,000 or more (12)
- Prefer not to answer (13)

Page Break



Q26 What is your age?

- 18 to 24 (1)
- 25 to 34 (2)
- 35 to 44 (3)
- 45 to 54 (4)
- 55 to 64 (5)
- 65 to 75 (6)
- 75 or older (7)
- Prefer not to answer (99)

Page Break

Q26 What is the highest level of education you have completed?

- Did not graduate high school (1)
- High school graduate (4)
- Associate's degree, vocation/ technical school, or some college (5)
- Four-year college degree (6)
- Graduate or professional degree (7)
- Prefer not to answer (8)

End of Block: Demographics

Start of Block: Closing

Q27 Is there anything else you would like Cascade Natural Gas to know?

Page Break



Q28 Thank you for taking the time to provide us with this valuable information. As a thank you for completing this survey, we will send you a \$10 gift card. You should expect to receive your gift card within 5-10 business days via email. Please be sure to check your spam and junk folders. To confirm, the correct email address to send the gift card to is $\{e://Field/EMAIL\}$?

- Please send my electronic gift card to the above email address (1)
- Please send my electronic gift card to the following email address: (2)

End of Block: Closing

7.1.4 Commercial Participant Survey

Start of Block: INTRODUCTION

Q1 Welcome! Thank you for taking this survey to tell us about your knowledge and awareness of CNGC's energy efficiency programs. Your feedback is very important to us and will help us improve programs for customers like you. This survey should take 10-15 minutes. Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>.

Once you have entered a response for each question, use the arrow at the bottom right of the screen to get to the next question.

End of Block: INTRODUCTION

Start of Block: SCREENING

Q2 Our records indicate that your facility at $\{e://Field/ADDRESS\}$ received a rebate through CNGC's Commercial program in $\{e://Field/YEAR\}$. Is that correct?

- Yes (1)
- No, I received a rebate BUT the address is incorrect (Please provide correct address) (2)

- No, I did not receive a rebate (3)

Skip To: End of Survey If Our records indicate that your facility at $\{e://Field/ADDRESS\}$ received a rebate through CNGC's... = No, I did not receive a rebate

Page Break _____

Q3 What is your job title or role?

- Facilities manager (1)
- Energy manager (2)
- Other facilities management/maintenance position (3)
- Chief Financial Officer (4)
- Other financial/administrative position (5)
- Proprietor/Owner (6)
- President/CEO (7)
- Manager (8)
- Other – please specify (9) _____

Page Break



Q4

Does your company have any of the following policies or procedures in place at [\\${e://Field/ADDRESS}](#)?

	Yes (1)	No (2)	Don't Know (98)
A person or persons responsible for monitoring or managing energy usage (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defined energy savings goals (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A specific policy requiring that energy efficiency be considered when purchasing equipment (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon reduction goals (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break



Q5 Please confirm the measures that you installed:

Display This Choice:

If FURNACE != 0

Display This Choice:

If HVAC HEATER != 0

Display This Choice:

If RADIANT HEATING != 0

Display This Choice:

If BOILER STEAM TRAP != 0

Display This Choice:

If DEMAND CONTROL VENTILATION != 0

Display This Choice:

If MUA != 0

Display This Choice:

If BOILER != 0

Display This Choice:

If FOOD SERVICE > 0

Display This Choice:

If GRIDDLE != 0

Display This Choice:

If DOUBLE RACK OVEN != 0

Display This Choice:

If CONVECTION OVEN != 0

Display This Choice:

If CONVEYOR OVEN != 0

Display This Choice:

If WINDOWS != 0

Display This Choice:

If FLOOR INSULATION != 0

Display This Choice:

If PIPE INSULATION != 0

Display This Choice:

If ATTIC INSULATION != 0

Display This Choice:

If ROOF INSULATION != 0

Display This Choice:

If WALL INSULATION != 0

Display This Choice:

If CEILING INSULATION = 1

Display This Choice:

If INSULATION != 0

Display This Choice:

If KITCHEN PRE RINSE SPRAY VALVE != 0

Display This Choice:

If WATER HEATER != 0

Display This Choice:

If RECIRCULATION CONTROLS != 0

Display This Choice:

If WATER TANK != 0

Display This Choice:

If OZONE INJECTION LAUNDRY != 0

Display This Choice:

If FRYER != 0

Display This Choice:

If DISHWASHER != 0

Display This Choice:

If STEAMER != 0

Display This Choice:

If DRYER != 0

Display This Choice:

If REFRIGERATION CASE DOORS = 1

Display This Choice:

If FAUCET = 1

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

	Yes (1)	No (2)	Don't Know (98)
<p><i>Display This Choice:</i> If FURNACE != 0</p> <p>Furnace (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If HVAC HEATER != 0</p> <p>HVAC heater (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If RADIANT HEATING != 0</p> <p>Radiant heating (3)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If BOILER STEAM TRAP != 0</p> <p>Boiler steam trap (4)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If DEMAND CONTROL VENTILATION != 0</p> <p>Demand control ventilation (5)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If MUA != 0</p> <p>Make up air unit (part of HVAC system) (32)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If BOILER != 0</p> <p>Boiler (7)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i> If FOOD SERVICE > 0</p> <p>Food Service Equipment (general) (34)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<i>Display This Choice:</i> <i>If GRIDDLE != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Griddle (8)			
<i>Display This Choice:</i> <i>If DOUBLE RACK OVEN != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double rack oven (9)			
<i>Display This Choice:</i> <i>If CONVECTION OVEN != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convection oven (10)			
<i>Display This Choice:</i> <i>If CONVEYOR OVEN != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conveyor oven (11)			
<i>Display This Choice:</i> <i>If WINDOWS != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Windows (12)			
<i>Display This Choice:</i> <i>If FLOOR INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Floor insulation (13)			
<i>Display This Choice:</i> <i>If PIPE INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pipe insulation (14)			
<i>Display This Choice:</i> <i>If ATTIC INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attic insulation (15)			

<i>Display This Choice:</i> <i>If ROOF INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roof insulation (16)			
<i>Display This Choice:</i> <i>If WALL INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wall insulation (17)			
<i>Display This Choice:</i> <i>If CEILING INSULATION = 1</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ceiling insulation (31)			
<i>Display This Choice:</i> <i>If INSULATION != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insulation (general) (33)			
<i>Display This Choice:</i> <i>If KITCHEN PRE RINSE SPRAY VALVE != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kitchen pre rinse spray valve (18)			
<i>Display This Choice:</i> <i>If WATER HEATER != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water heater (19)			
<i>Display This Choice:</i> <i>If RECIRCULATION CONTROLS != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recirculation controls (20)			
<i>Display This Choice:</i> <i>If WATER TANK != 0</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water tank (21)			

Display This Choice:
*If OZONE INJECTION
LAUNDRY != 0*

Ozone injection laundry
(22)

Display This Choice:
If FRYER != 0

Fryer (23)

Display This Choice:
If DISHWASHER != 0

Dishwasher (24)

Display This Choice:
If STEAMER != 0

Steamer (25)

Display This Choice:
If DRYER != 0

Dryer (26)

Display This Choice:
*If REFRIGERATION
CASE DOORS = 1*

Refrigeration case door
(27)

Display This Choice:
If FAUCET = 1

Motion control faucet
(29)

Page Break



Q6 How did you first learn about CNGC's Commercial program?

- Mailed information from CNGC (1)
- Utility Bill message (2)
- Utility website (3)
- Email from CNGC (4)
- Newspaper or magazine article or ad (5)
- Radio or television ad (6)
- Social media (i.e. Facebook, Instagram, Twitter/X, Tik Tok, etc.) (7)
- Contractor or CNGC Trade Ally (8)
- Word of mouth (friend, family, colleague, neighbor, etc.) (9)
- A CNGC account representative (10)
- Previous participation (11)
- Other – please explain (96) _____
- I don't know (98)

Page Break



Q7 Why did you decide to participate in the program? Please select all that apply

- Save money on energy bills (1)
 - Improve the comfort of the facility (2)
 - Conserve energy and/or protect the environment (3)
 - Get the free or discounted equipment or services (4)
 - Recommendation from a utility representative (5)
 - Recommendation from a contractor (6)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q8 Did you view any Cascade Natural Gas marketing material or advertisements about the program rebates and services before participating in the program?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... =
Yes



Q9 What materials did you view? Please select all that apply

- A Cascade Natural Gas email (1)
 - A Cascade Natural Gas social media post (2)
 - The Cascade Natural Gas website (3)
 - A Cascade Natural Gas mailing or flyer (4)
 - Something else (Please describe) (5)
-
- Don't recall (98)

Page Break

Display This Question:

If Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... = Yes

Q10 To what extent did the marketing materials influence your decision to make the energy efficiency improvements or purchase the energy efficient products you got a rebate for?

- Not a all (1)
- Slightly (2)
- Moderately (3)
- Significantly (4)
- Completely (5)

Page Break

Display This Question:

If To what extent did the marketing materials influence your decision to make the energy efficiency... != Not a all

And Did you view any Cascade Natural Gas marketing material or advertisements about the program rebat... = Yes



Q11 Which aspects of the marketing materials influenced your decision to participate in the program?
Please select all that apply

- Information about the rebate offer (1)
 - Details on the benefits of the product or service (2)
 - Trust in Cascade Natural Gas (3)
 - Clarity and appeal of the marketing presentation (4)
 - Recommendations or endorsements included in the materials (5)
 - Environmental impact or energy efficiency information (6)
 - Something else (Please describe) (7)
-

Page Break



Q12 Did you receive any technical services such as a facility assessment, calculation or application assistance, or other assistance from the program? Please select all that apply

- Facility assessment (1)
 - Calculation (2)
 - Application assistance (3)
 - Other assistance – please specify (4)
-
- I did not receive any kind of technical assistance or services (5)
 - I don't know (98)

Page Break



Q13 Who installed the project qualifying equipment or efficiency upgrades?

- My own staff (1)
- A contractor you have worked with before (2)
- A new contractor that you had NOT worked with before (3)
- Other – please specify (4) _____
- I don't know (98)

Page Break

Display This Question:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before



Q14 Was the contractor you worked with a Cascade Natural Gas Conservation Trade Ally?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before



Q15 How did you find the contractor who implemented the measure(s) you installed through the commercial program?

- CNGC website (1)
- A program representative referred me to a contractor (2)
- The contractor was someone you've worked with before (3)
- Through a personal contact (friend, family, colleague, etc.) (4)
- Internet search (5)
- Other – please specify (96) _____
- I don't know (98)

Page Break

Display This Question:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before



Q16 Please rate how much you agree or disagree with the following statements regarding your experience with your contractor

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly Agree (5)	Don't Know (98)
The contractor was courteous and professional (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work was scheduled in a reasonable amount of time (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to complete the work was reasonable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If Please rate how much you agree or disagree with the following statements regarding your experienc... [Strongly disagree] (Count) != 0

Or Please rate how much you agree or disagree with the following statements regarding your experienc... [Somewhat disagree] (Count) != 0

And If

Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before

Q17 You indicated some disagreement, why do you disagree?

Page Break

Q18 Did you have any difficulty getting the equipment or material that you received a rebate for?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the equipment or material that you received a rebate for? = Yes

Q19 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (4)
-

Page Break

Display This Question:

If What was the primary difficulty you had? = It took a long time to get it delivered

Q20 How long did you have to wait to get the equipment?

- Less than a week (1)
- 1-2 weeks (2)
- 3-4 weeks (3)
- More than a month (4)

Page Break



Q21 Which of the following people worked on completing your application to receive the incentives?
Please select all that apply

- Myself (1)
 - Another member of your company (2)
 - Contractor (3)
 - An equipment vendor (4)
 - A designer or architect (5)
 - A program representative (6)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Display This Question:

If Which of the following people worked on completing your application to receive the incentives? Pl... = Myself



Q22 Did you use the web-based online application, or did you complete and submit the pdf application?

Online application (1)

Submitted pdf application (2)



I don't know (98)

Page Break

Display This Question:
If Which of the following people worked on completing your application to receive the incentives? Pl... = Myself



Q23 Please rate how much you agree or disagree with the following statements regarding your experience with the application process.

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)	Don't know (98)
Finding the application forms was easy (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing the application was easy (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time it took to approve the application was acceptable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The information on how to complete the application was clear (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing the required invoices or other supporting documentation was easy (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The overall application process was smooth (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If Please rate how much you agree or disagree with the following statements regarding your experienc... [Strongly disagree] (Count) != 0

Or Please rate how much you agree or disagree with the following statements regarding your experienc... [Somewhat disagree] (Count) != 0

Q24 How could the application process be improved?

End of Block: SCREENING

Start of Block: MEASURE VERIFICATION - HEATING SYSTEM

Q25 In this section we will ask you about the heating/cooling system you installed.



Q26 Why did you select the model/type for your heating system? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q27 Did you replace an old heating system?

Yes (1)

No (2)

Skip To: End of Block If Did you replace an old heating system? = No

Page Break



Q28 Did the replaced heating system still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q29 How old was your heating system when you replaced it? Number of years:

Page Break



Q30 Is the new heating system that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (3)
The heating system is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The heating system is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - HEATING SYSTEM

Start of Block: MEASURE VERIFICATION - FOOD SERVICE

Q31 In this section we will ask you about the food service equipment you installed.

Display This Question:
If Please confirm the measures that you installed: = Griddle [Yes]



Q32 How many griddles did you install?

Skip To: Q36 If Condition: How many griddles did you i... Is Equal to 0. Skip To: How many double rack ovens did you in....

Page Break

Display This Question:

If Please confirm the measures that you installed: = Griddle [Yes]



Q33 Why did you select the model/type for your griddle? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Griddle [Yes]



Q34 What was the main purpose of the griddle(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the griddle(s) you installed? = Replacement of working unit

Q35 Why did you replace a working griddle?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)
- Other – please specify (5) _____

Page Break

Display This Question:

If Please confirm the measures that you installed: = Double rack oven [Yes]



Q36 How many double rack ovens did you install?

Skip To: Q41 If Condition: How many double rack ovens ... Is Equal to 0. Skip To: How many convection ovens did you ins....

Page Break

Display This Question:

If Please confirm the measures that you installed: = Double rack oven [Yes]



Q37 Why did you select the model/type for your double rack ovens? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Double rack oven [Yes]



Q38 What was the main purpose of the double rack ovens you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the double rack ovens you installed? = Replacement of failed unit

Q39 What type of oven did you replace?

- Old double rack oven (1)
- Old deck oven (2)
- Other (please explain) (3) _____

Page Break

Display This Question:

If What was the main purpose of the double rack ovens you installed? = Replacement of working unit

Q40 Why did you replace a working double rack ovens?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Convection oven [Yes]



Q41 How many convection ovens did you install?

Skip To: Q46 If Condition: How many convection ovens d... Is Equal to 0. Skip To: How many conveyor ovens did you install?.

Page Break

Display This Question:

If Please confirm the measures that you installed: = Convection oven [Yes]



Q42 Why did you select the model/type for your convection ovens? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Convection oven [Yes]



Q43 What was the main purpose of the convection oven(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the convection oven(s) you installed? = Replacement of failed unit

Q44 What type of convection oven did you replace?

- Old convection oven (1)
- Old deck oven (2)
- Other (please explain) (3) _____

Page Break

Display This Question:

If What was the main purpose of the convection oven(s) you installed? = Replacement of working unit

Q45 Why did you replace a working convection oven?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Conveyor oven [Yes]



Q46 How many conveyor ovens did you install?

Skip To: Q51 If Condition: How many conveyor ovens did... Is Equal to 0. Skip To: Click to write the question text.

Page Break

Display This Question:

If Please confirm the measures that you installed: = Conveyor oven [Yes]



Q47 Why did you select the model/type for your conveyor ovens? Select all that apply

- There was a rebate for it (1)
 - It costs less to operate it (2)
 - It's good for the environment (3)
 - It was all that was available/only choice (4)
 - The contractor recommended it (5)
 - The retailer recommended it (6)
 - It had features I wanted (7)
 - It was the right size or color (8)
 - It was the brand I wanted (9)
 - It had an ENERGY STAR label (10)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Conveyor oven [Yes]



Q48 What was the main purpose of the conveyor oven(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the conveyor oven(s) you installed? = Replacement of failed unit

Q49 What type of conveyor oven did you replace?

Old conveyor oven (1)

Other (please explain) (2) _____

Page Break _____

Display This Question:

If What was the main purpose of the conveyor oven(s) you installed? = Replacement of working unit

Q50 Why did you replace a working conveyor oven?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Fryer [Yes]



Q51 How many fryers did you install?

Skip To: Q55 If Condition: How many fryers did you ins... Is Equal to 0. Skip To: How many dishwashers did you install?.

Page Break

Display This Question:

If Please confirm the measures that you installed: = Fryer [Yes]



Q52 Why did you select the model/type for your fryer? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (12)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Fryer [Yes]



Q53 What was the main purpose of the fryer(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Fryer [Yes]

And What was the main purpose of the fryer(s) you installed? = Replacement of working unit

Q54 Why did you replace a working fryer?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Dishwasher [Yes]



Q55 How many dishwashers did you install?

Skip To: Q59 If Condition: How many dishwashers did yo... Is Equal to 0. Skip To: How many steamers did you install?.

Page Break

Display This Question:

If Please confirm the measures that you installed: = Dishwasher [Yes]



Q56 Why did you select the model/type for your dishwasher? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (12)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Dishwasher [Yes]



Q57

What was the main purpose of the dishwasher(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the dishwasher(s) you installed? = Replacement of working unit

Q58 Why did you replace a working griddle?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Steamer [Yes]



Q59 How many steamers did you install?

Skip To: End of Block If Condition: How many steamers did you i... Is Equal to 0. Skip To: End of Block.

Page Break

Display This Question:

If Please confirm the measures that you installed: = Steamer [Yes]



Q60 Why did you select the model/type for your steamer? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (12)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Steamer [Yes]



Q61 What was the main purpose of the steamer(s) you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Page Break

Display This Question:

If What was the main purpose of the steamer(s) you installed? = Replacement of working unit

Q62 Why did you replace a working steamer?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Food Service Equipment (general) [Yes]



Q122 What type of food service equipment did you install?

Page Break

Display This Question:

If Please confirm the measures that you installed: = Food Service Equipment (general) [Yes]



Q121 Why did you select the model/type for your food service equipment? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (12)
-
- I don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Food Service Equipment (general) [Yes]



Q123 What was the main purpose of the food service equipment you installed?

- Replacement of failed unit (1)
- Replacement of working unit (2)
- An addition to increase capacity or to broaden or change the menu (3)
- I don't know (98)

Display This Question:

If What was the main purpose of the food service equipment you installed? = Replacement of working unit

Q124 Why did you replace working food service equipment?

- Thought old equipment was about to fail (1)
- To increase capacity (2)
- To change or add to the menu (3)
- To reduce my monthly gas bill (4)

End of Block: MEASURE VERIFICATION - FOOD SERVICE

Start of Block: MEASURE VERIFICATION - REFRIGERATOR DOOR

Display This Question:

If Please confirm the measures that you installed: = Refrigeration case door [Yes]

Q63 In this section we will ask you about the refrigeration equipment you installed.

Is the refrigeration door installed and currently operating?

	Yes (1)	No (2)	Don't know (3)
Is it installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is it operating? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If Please confirm the measures that you installed: = Refrigeration case door [Yes]



Q64 Did the refrigeration case door that you received a rebate for replace existing equipment?

- Yes (1)
- No (2)
- Don't know (98)

End of Block: MEASURE VERIFICATION - REFRIGERATOR DOOR

Start of Block: MEASURE VERIFICATION - WATER HEATING SYSTEM

Q65 In this section we will ask you about the water heating system you installed.



Q66 Why did you select the model/type for your water heating system? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break



Q67 Was the water heating system a...

- Emergency replacement (1)
- Planned replacement (2)
- Price drive purchase (e.g. it seemed like a good deal) (3)
- I don't know (98)

Page Break

Q68 Did you replace an old water heating system?

Yes (1)

No (2)

Skip To: Q71 If Did you replace an old water heating system? = No

Page Break



Q69 Did the replaced water heating system still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q70 How old was your heating system when you replaced it? Number of years:



Page Break





Q71 Is the new water heating system that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The new water heating system is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The new water heating system is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - WATER HEATING SYSTEM

Start of Block: MEASURE VERIFICATION - OTHER WATER MEASURES

Display This Question:

If Please confirm the measures that you installed: = Kitchen pre rinse spray valve [Yes]



Q72 Is the new kitchen pre rinse spray valve that you received a rebate for currently installed and working?

	Yes (1)	No (3)	Don't know (4)
The kitchen pre rinse spray is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The kitchen pre rinse spray is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:
If Please confirm the measures that you installed: = Recirculation controls [Yes]



Q73 Are the new recirculation controls that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The recirculation controls are installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The recirculation controls are working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:
If Please confirm the measures that you installed: = Ozone injection laundry [Yes]



Q74 Is the new ozone injection laundry that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (3)
The ozone injection laundry is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ozone injection laundry is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:
If Please confirm the measures that you installed: = Motion control faucet [Yes]



Q75 Is the motion faucet control that you received a rebate for currently installed and working?

	Yes (1)	No (2)	Don't know (98)
The motion faucet control is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The motion faucet control is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: MEASURE VERIFICATION - OTHER WATER MEASURES

Start of Block: MEASURE VERIFICATION - WEATHERIZATION

Display This Question:
If Please confirm the measures that you installed: = Windows [Yes]



Q76 For the energy efficient windows project that you got the rebate for, did you replace all the single pane windows in the building with energy efficient windows?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the energy efficient windows project that you got the rebate for, did you replace all the sin... = No

Q77 Why did you not replace all the single pane windows?

- Budget constraints (1)
 - Structural or architectural restrictions (2)
 - Plan to replace them in future phases (3)
 - Limited availability of suitable replacements (4)
 - Historical preservation considerations (5)
 - Other priorities in the building renovation (6)
 - Tenant or occupant preferences (7)
 - Lack of perceived benefit for all windows (8)
 - Other (Please describe) (9)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Insulation (general) [Yes]

Q118 For the insulation project, did you insulate all of the building?

- Yes (1)
- No (2)
- Don't know (3)

Page Break

Display This Question:

If For the insulation project, did you insulate all of the building? = No

Q120 Why did you choose to not insulate all of the building?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Attic insulation [Yes]



Q78 For the attic insulation project, did you insulate all of the building's attic space?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the attic insulation project, did you insulate all of the building's attic space? = No

Q79 Why did you choose to not insulate all of the attic space?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Roof insulation [Yes]



Q80 For the roof insulation project, did you insulate all of the building's roof space?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the roof insulation project, did you insulate all of the building's roof space? = No

Q81 Why did you choose to not insulate all of the roof space?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Wall insulation [Yes]



Q82 For the wall insulation project, did you insulate all of the building's exterior walls?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the wall insulation project, did you insulate all of the building's exterior walls? = No

Q83 Why did you choose to not insulate all of the roof space?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Floor insulation [Yes]



Q84 For the floor insulation project, did you insulate all of the building's floor space?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Floor insulation [Yes]

And For the floor insulation project, did you insulate all of the building's floor space? = No

Q85 Why did you choose to not insulate all of the floor space?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Pipe insulation [Yes]



Q86 For the pipe insulation project, did you insulate all of the building's pipes?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If Please confirm the measures that you installed: = Pipe insulation [Yes]

And For the pipe insulation project, did you insulate all of the building's pipes? = No

Q87 Why did you choose to not insulate all of the pipes?

- Budget constraints (1)
 - Insulation not deemed necessary or effective in those areas (2)
 - Structural or architectural limitations (3)
 - Plans to insulate in future phases (4)
 - Concerns about disruption during installation (5)
 - Limited availability of suitable insulation materials (6)
 - Tenant or occupant preferences (7)
 - Other renovation priorities (8)
 - Uncertainty about the benefits of additional insulation (9)
 - Other reasons (please specify) (10)
-

Page Break

Display This Question:

If Please confirm the measures that you installed: = Ceiling insulation [Yes]



Q88 For the ceiling insulation project, did you insulate all of the building's ceilings?

- Yes (1)
- No (2)
- Don't know (98)

Page Break

Display This Question:

If For the ceiling insulation project, did you insulate all of the building's ceilings? = No

Q89 Why did you choose to not insulate all of the ceiling space?

- Budget constraints (1)
- Insulation not deemed necessary or effective in those areas (2)
- Structural or architectural limitations (3)
- Plans to insulate in future phases (4)
- Concerns about disruption during installation (5)
- Limited availability of suitable insulation materials (6)
- Tenant or occupant preferences (7)
- Other renovation priorities (8)
- Uncertainty about the benefits of additional insulation (9)
- Other reasons (please specify) (10)

End of Block: MEASURE VERIFICATION - WEATHERIZATION

Start of Block: MEASURE VERIFICATION - CLOTHES DRYER

Q90 In this section we will ask you about the ENERGY STAR clothes dryer you installed.



Q91 Why did you select the model/type for your clothes dryer? Select all that apply

- It was a good price (1)
 - There was a rebate for it (2)
 - It costs less to operate it (3)
 - It's good for the environment (4)
 - It was all that was available/only choice (5)
 - The contractor recommended it (6)
 - The retailer recommended it (7)
 - It had features I wanted (8)
 - It was the right size or color (9)
 - It was the brand I wanted (10)
 - It had an ENERGY STAR label (11)
 - Other – please specify (96)
-
- I don't know (98)

Page Break

Q92 Did you have any difficulty getting the efficient clothes dryer that qualified for a rebate?

Yes (1)

No (2)

Page Break

Display This Question:

If Did you have any difficulty getting the efficient clothes dryer that qualified for a rebate? = Yes

Q93 What was the primary difficulty you had?

- It was unavailable, needed to be ordered (1)
 - It took a long time to get it delivered (2)
 - It was hard to find a contractor (3)
 - Something else (Please describe) (4)
-

Page Break

Q94 How long did you have to wait to get the clothes dryer?

- Less than a week (1)
- 1-2 weeks (2)
- 3-4 weeks (3)
- More than a month (4)

Page Break

Q95 Did you replace a clothes dryer or was this a new installation?

- Replaced a clothes dryer (1)
- New installation (2)

Skip To: Q99 If Did you replace a clothes dryer or was this a new installation? = New installation

Page Break



Q96 Did the old, replaced clothes dryer still work when you replaced it?

- Yes (1)
- No (2)
- I don't know (98)

Page Break



Q97 How old was your clothes dryer when you replaced it? Number of years:

Page Break

Display This Question:

If Did the old, replaced clothes dryer still work when you replaced it? = Yes

Q98 If the Cascade Natural Gas incentive program was not available, when would you have likely replaced your clothes dryer?

- At the same time (1)
- Later, but within a year (2)
- One to two years out (3)
- More than two years out or never (4)

Page Break

Q99 On a scale from one to five, where one means “very dissatisfied” and five means “very satisfied”, how satisfied are you with the performance of your new clothes dryer ?

- 1 – very dissatisfied (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 – very satisfied (5)

Page Break



Q100 Is the new clothes dryer that you received a rebate for currently installed and working?

	yes (1)	No (2)	Don't know (98)
The clothes dryer is installed? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The clothes dryer is working? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q101 Did you buy a new clothes washer when you bought the new clothes dryer?

- Yes (1)
- No, only bought the clothes dryer (2)

Page Break

Display This Question:

If Did you buy a new clothes washer when you bought the new clothes dryer? = Yes



Q102 Is the new clothes washer an ENERGY STAR certified dryer?

- Yes (1)
- No (2)
- I don't know (98)

End of Block: MEASURE VERIFICATION - CLOTHES DRYER

Start of Block: SATISFACTION



Q103 After your project was completed, did a program representative inspect the work that you received an incentive for?

- Yes (1)
- No (2)
- I don't know (98)

Page Break

Display This Question:
If After your project was completed, did a program representative inspect the work that you received... = Yes



Q104 Please rate how much you agree or disagree with the following statements regarding your experience with the inspection process

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)	Don't know (98)
The inspection was scheduled in a reasonable amount of time (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The inspector was courteous (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The inspector was efficient (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 Page Break

Q105 Please rate your satisfaction with the following program elements

Display This Choice:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before

Display This Choice:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before

Cascade Natural Gas Process Evaluation Report PY2022-PY2023

	Strongly dissatisfied (1)	Somewhat dissatisfied (2)	Neutral (3)	Somewhat satisfied (4)	Strongly satisfied (5)	Don't know (98)
The program representative that assisted you with your project (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The facility assessment or other technical services received from the program (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i></p> <p><i>If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before</i></p> <p><i>Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before</i></p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The proposal you received from your contractor (3)						

The equipment that was installed (4)

Display This Choice:

If Who installed the project qualifying equipment or efficiency upgrades? = A contractor you have worked with before

Or Who installed the project qualifying equipment or efficiency upgrades? = A new contractor that you had NOT worked with before

The contractor's explanation of the program rules and processes (5)

The range of qualifying equipment (6)

The steps you had to take to get the program rebate (7)

The amount of time it took to get the program rebate after your project was completed (8)

The program overall (10)

Display This Question:

If Please rate your satisfaction with the following program elements [Strongly dissatisfied] (Count) != 0

Or Please rate your satisfaction with the following program elements [Somewhat dissatisfied] (Count) != 0

Q106 You indicated some dissatisfaction, why were you dissatisfied?

Page Break

Q107 Please rate your level of satisfaction with CNGC as your gas provider

- Not at all satisfied (1)
- Somewhat dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Somewhat satisfied (4)
- Very satisfied (5)

End of Block: SATISFACTION

Start of Block: BUILDING AUTOMATION SYSTEM/ENERGY MANAGEMENT SYSTEM

Q108 Does the facility at $\{e://Field/ADDRESS\}$ have a building automation or energy management system?

A Building Automation System (BAS) or Energy Management System (EMS) is a centralized network of hardware and software that controls and monitors various building systems, such as HVAC, lighting, power systems, and sometimes fire and security systems. Its primary function is to improve system efficiency, reduce energy consumption and operating costs, and enhance the comfort and safety of building occupants. The system achieves this through real-time data collection, automated control, and user-configurable settings.

Yes (1)

No (2)

Display This Question:

If Please confirm the measures that you installed: = Demand control ventilation [No]

Q109 Does your building have a demand control ventilation system?

A demand control ventilation (DCV) system is a smart ventilation strategy used primarily in buildings to regulate indoor air quality and conserve energy.

Yes (1)

No (2)

End of Block: BUILDING AUTOMATION SYSTEM/ENERGY MANAGEMENT SYSTEM

Start of Block: FIRMOGRAPHICS



Q110 Does your company rent or own the facility at [\\${e://Field/ADDRESS}](#)?

- Rent (1)
- Own and occupy (2)
- Own and rent to someone else (3)
- I don't know (98)

Page Break



Q111 Which describes your facility at [\\${e://Field/ADDRESS}](#)?

- Your company's only location (1)
- One of several locations owned by your company (2)
- The headquarter location of a company with several locations (3)
- I don't know (98)

Page Break



Q112 Which of the following best describes how your organization is billed for gas used at this location?

- We are billed directly by CNGC (1)
- We are NOT billed directly by CNGC, our gas bill is handled by another part of our company or a third-party service (2)
- We are NOT billed directly by CNGC, the cost for our gas is included in our (4)
- rent/lease (5)
- I don't know (98)

Page Break

Q113 What type of building is the facility at $\{e://Field/ADDRESS\}$?

- Industrial/manufacturing (1)
- Agricultural (2)
- Warehouse or distribution center (3)
- College or university (4)
- School K-12 (5)
- Government building (6)
- Fast food restaurant (7)
- Restaurant (not fast food) (8)
- Grocery (9)
- Hospital (10)
- Health clinic (11)
- Small office (12)
- Large office (13)
- Lodging (14)
- Gathering space (15)
- Retail (16)
- Parking garage (17)
- Vacant lot (18)
- Other – please explain (96) _____
- I don't know (98)

Q114 Do you have any other comments that you would like to relay to CNGC about energy efficiency or their programs?

End of Block: FIRMOGRAPHICS

Start of Block: CLOSING

Q115 Thank you for taking the time today to complete this survey. As stated in the email, we are providing a \$10 electronic gift card as a thank you for your responses. The email address we have on file for you is [\\${e://Field/EMAIL}](#), please confirm this information.

- Yes, please send my electronic gift card to the above email address (1)
 - No, please send my electronic gift card to the following email address (2)
-

End of Block: CLOSING

7.2 APPENDIX B: INTERVIEW GUIDES

7.2.1 Builder Interview Guide

Table 7-1 Overview of Data Collection Activity

DESCRIPTOR	THIS INSTRUMENT
Instrument Type	In-depth interview
Estimated Time to Complete	30-45 Mins
Population Description	Participating builders

Table 7-2 Research Objectives

RESEARCH QUESTION FROM PROPOSAL
Are marketing plans implemented per design and effective?
What problems, if any, has the market experience in purchasing or attaining efficient equipment?
What barriers, market or otherwise, limit participation in the program?
What progress has been made in reviewing the potential for adding POS rebates to new construction? What are builder perceptions of this service as compared to the traditional program?
How have builders responded to energy code changes in terms of installing gas space and water heating in new homes? What do they anticipate for the future? What do they hear from buyers about gas space heating, water heating, and cooking applications?
How effective has the program been in incentivizing home certifications?
What has the program done to increase the availability of raters? What are builders' perceptions and awareness of the availability of raters for the purpose of obtaining home certifications?

7.2.1.1 Recruitment Script

Hello [NAME],

My name is [ADM NAME] and I work for ADM Associates. We are working with CNGC to do an evaluation of their new homes program and they want to better understand the program experience of builders. As part of this research, we would like to talk with participating builders, like yourself, about your experience with the program.

We'd like to invite you to participate in a phone interview sometime this week or next. The discussion should take about 30 to 45 minutes to complete and as a thank you for your time, you will receive a \$50 e-gift card, which can be redeemed online at a variety of retailers. Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy police at <https://www.admenergy.com/privacy>. Would you be interested and available to share your feedback?

Your feedback is greatly appreciated and will help CNGC improve their program for contractors and customers.

Best,

7.2.1.2 Interview Guide

7.2.1.2.1 Introduction

Thank you for taking the time to talk with us today. My name is [NAME] and I work for ADM Associates. We are speaking today so that I can better understand your participation in CNGC's New Homes Program. Our discussion will contribute to our understanding and evaluation of the program. Please be as open as possible.

Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>. I would like to record our discussion for notetaking purposes, is that alright with you?

Do you have any questions before we get started?

7.2.1.2.2 Roles & Responsibilities

Objective: Learn how builders learn about the New Homes Program and their understanding of the program.

1. Can you tell me a little bit about your business and the type of work you do?
 1. How long have you been in business?
 2. What is your role?
 3. What types of buildings do you typically work on? (single family homes, multifamily homes, commercial development)
2. How long have you been engaged with CNGC's New Homes Program?
 1. Do you participate in other CNGC energy efficiency programs?
 2. Do you participate in other utilities' energy efficiency programs?
3. How did you first learn about the program? What motivated you to participate?

7.2.1.2.3 Market Conditions & Customer Outreach

Objective: How do builders market the program and energy efficiency more generally to customers. How is the current market impacting builders, especially regarding energy-efficiency equipment. What are the barriers to participation for builders and their customers?

4. What is your typical process for building and selling homes? (build then sell, custom build, something else)?
 1. Who typically makes the decisions regarding the efficiency of the homes you build? (you, customers, someone else)
5. To what extent do you talk to your customers about energy efficiency in homes?
 1. What proportion of the homes you build are efficient vs. standard efficiency? (estimate is ok)
 2. Do clients ever ask you about energy-efficient homes?
6. What factors motivate customers to want efficient homes?
7. What aspects do you emphasize when promoting efficient homes to customers?
8. Do you talk to them about the rebates available from Cascade Natural Gas?
9. What are the main reasons customers don't opt for efficient homes? (biggest barriers)
10. What changes would you need to see (in markets or programs) to more frequently build more energy efficient homes?
11. How have energy code changes impacted your new construction work?

1. How have customers responded to changes in codes related to space heating, water heating, and cooking applications?

7.2.1.2.4 Program Participation & Process

Objective: To describe the process of participating in the program. How is the program experienced by builders?

12. Can you describe the rebate application process from your perspective?
 1. Anything confusing about that process?
 2. Is the review of the applications and payment on incentives timely?
 3. Have you completed qualifying projects that you didn't submit a rebate for? Why?
13. What are your opinions regarding point-of-sale rebates for new construction, as compared to traditional application process?
14. Is there any equipment or building practices that are not currently eligible for a program incentive, but you think should be?
 1. Have you or your company considered using whole home air sealing products such as AeroBarrier, which could provide 2 points worth of energy credits in a new home".
15. Are you aware of the programs' incentives for home certifications? What are your opinions of this incentive opportunity?
 1. Has the program helped increased the availability of raters for home certifications?

7.2.1.2.5 Program Influence and Market Conditions

16. Is your company's rate of production in the range you planned for this year?
17. What factors are influencing your company's building rate right now?
18. What do you predict for next year?
19. What causes delays in your projects?
20. Do you expect to see any changes in the number of new homes built with natural gas service in the next few years?

7.2.1.2.6 Program Satisfaction

21. Have you attended any kind of training provided by CNGC regarding their residential program(s)? If yes, please describe.
22. Is there any additional training that you would like to be provided?
23. How often do you communicate with CNGC representatives regarding the New Homes program? Please describe that communication.
24. On a scale of 1 through 5 where 1 means "not at all satisfied" and 5 means "completely satisfied" how satisfied are you with the following program elements?
 1. The program application process
 2. The range of measures that qualify for the program
 3. The amount of time it takes to receive the incentive
 4. The program overall
25. What do you think works particularly well for the program?
26. What do you find challenging about working with the program?
27. Do you have any suggestions for improving the program?

7.2.2 CAP Agency Representative Interview Guide

Table 7-3 Overview of Data Collection Activity

DESCRIPTOR	THIS INSTRUMENT
------------	-----------------

Instrument Type	In-depth interview
Estimated Time to Complete	30-45 Mins
Population Description	CAP Agencies

Table 7-4 Research Objectives

RESEARCH QUESTION FROM PROPOSAL
Is the program meeting quality verification/inspection targets? What has been learned from those by “visits” do you mean INSPECTIONS? Inspection is the term commonly used for the visit AFTER the work is complete visits and how are the findings integrated into the program processes?
To what extent are health & safety measures offered as part of the low-income weatherization program? To what extent do significant structural issues in low-income housing prevent participation and how are these cases managed? What benefits do participants perceive?
What has the program learned from the meetings with weatherization agencies on how to expand program participation? What lessons have been or will be incorporated into the program design or process?

7.2.2.1 Recruitment Script

Hello [NAME],

My name is [ADM NAME] and I work for ADM Associates. We are working with CNGC to do an evaluation of their low income weatherization? program and they want to better understand the program experience of CAP agencies. As part of this research, we would like to talk with representatives from CAP agencies about your experience with the program.

We’d like to invite you to participate in a phone interview sometime this week or next. The discussion should take about 30 to 45 minutes to complete and as a thank you for your time, you will receive a \$50 e-gift card, which can be redeemed online at a variety of retailers. Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM’s privacy police at <https://www.admenergy.com/privacy>. Would you be interested and available to share your feedback?

Your feedback is greatly appreciated and will help CNGC improve their program for contractors and customers.

Best,

7.2.2.2 Interview Guide

7.2.2.2.1 Introduction

Thank you for taking the time to talk with us today. My name is [NAME] and I work for ADM Associates. We are speaking today so that I can better understand your participation in CNGC’s Weatherization Incentive or low income weatherization Program. Our discussion will contribute to our understanding and evaluation of the program. Please be as open as possible.

Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM’s privacy police at <https://www.admenergy.com/privacy>. I would like to record our discussion for notetaking purposes, is that alright with you?

Do you have any questions before we get started?

7.2.2.2.2 Roles & Responsibilities

Objective: Learn how CAP agencies learn about the existing homes program and gather insight regarding their understanding of the program.

1. Can you tell me a little bit about your role at the CAP agency?
 1. How long have you been in this role?
 2. What is your role?
 3. What proportion of your job is focused on the existing homes program?
2. How long have you partnered with CNGC??
 1. Do you participate in other CNGC energy efficiency programs?
 2. Do you work with other utilities' energy efficiency programs?

7.2.2.2.3 Low Income Weatherization Services

Objective: To describe the process of participating in the program. How is the program experienced by CAP agency staff?

3. What services does your agency provide for the Cascade Low-Income Program?
4. Can you tell me about the process for completing a program project? How does the project typically start? What are the key steps for completing the project?
5. What is involved in completing the energy audits?
 1. What discussions do you have with the resident?
 2. What types of assessments do you perform?
 3. What types of testing do you do in the home? If needed, do you do blower door testing, duct leakage testing?
6. Are the improvements made by employees of your agency or do you work with other contractors?
7. How do you communicate completed jobs? What is the system used for invoicing and tracking of progress toward job completion? How are completed jobs documented?
8. What paperwork or reporting is required by Cascade Natural Gas? Is there potential to improve in these requirements?

7.2.2.2.4 Funding Sources

Objective: Understand other funding sources and how CNGC funds are used.

9. What other sources of funding, if any, do you have for making energy efficiency improvements in homes that receive services funded by Cascade Natural Gas?
 1. [If other sources] How do you determine what energy efficiency improvements to spend the Cascade Natural Gas budget on?
 2. Do you have funding from Cascade Natural Gas to make health and safety improvements? How much per home? What other funding sources do you have for health and safety?
 3. How are cases where the home needs significant repairs before energy efficiency improvements handled? (If needed, for example, fixing holes in the roof or walls, broken windows). What kind of repair issues do you typically encounter? Do you have other sources of funding or work with other organizations to make those repairs?

7.2.2.2.5 Market Conditions & Customer Outreach

Objective: How is the current market impacting CAP agencies. What are the barriers to participation for their customers?

10. How does your agency generate leads for this program? (customers come to you, outreach to customers, CNGC sends you leads) Is the way you generate leads different for homes where the resident owns the home versus when the resident is renting the home?
11. What is the process for getting approval from the owner of the property when a renter is seeking services? Who is responsible for getting that approval? What challenges, if any, are there in getting the approval from the owner?
12. How do you promote the availability of the weatherization incentive program (WIP) to customers? What aspects of efficient products do you emphasize to your customers when promoting efficient products to customers?
13. What kinds of efficiency improvements do customers refuse and why? (biggest barriers)
14. Are there types of households that your agency serves that are not being reached by the energy efficiency services you provide (*Probe for geographical area, customer type, etc.*)
 1. Aside from increasing the funding, how can the program better attract these customers?

7.2.2.2.6 Quality Assurance and Control

15. What training or certifications do your staff members receive to ensure high-quality energy audits and installations?
16. What quality control procedures or guidelines do you reference (e.g., the DOE WAP Standard Work Specifications)?
17. What inspections are performed for completed projects?
18. What steps are taken if quality control processes identify issues?
19. If a participant has concerns about the work done on their home, who would they contact and what steps would be taken?

7.2.2.2.7 Training and Workforce Development

20. Have you attended any kind of training provided by CNGC regarding their residential program(s)? If yes, please describe.
21. Is there any additional training that you would like to be provided?
22. What challenges do you face in maintaining a workforce to provide the energy efficiency services?
23. What steps has your agency taken to try to address these challenges? Are there ways that CNGC could provide support in addressing these challenges?
24. If turnover is mentioned, what factors are leading to turnover? Do you know what types of jobs or locations people who leave are going to?

7.2.2.2.8 Communication and Satisfaction

25. How often do you communicate with CNGC representatives regarding the program? Please describe that communication. Do you think communication with CNGC could be improved? How so?
26. What do you think works particularly well for the program?
27. What do you find challenging about working with the program?
28. Do you have any suggestions for improving the program?

7.2.3 Commercial Trade Ally Interview Guide

Table 7-5 Overview of Data Collection Activity

DESCRIPTOR	THIS INSTRUMENT
Instrument Type	In-depth interview
Estimated Time to Complete	30-45 Mins
Population Description	Commercial Trade Allies

Table 7-6 Research Objectives

RESEARCH QUESTION FROM PROPOSAL
Are marketing plans implemented per design and effective?
What problems, if any, has the market experience in purchasing or attaining efficient equipment?
What barriers, market or otherwise, limit participation in the program?
What is the current market penetration of measure offerings? Does participation vary by geographic region, business size, or other firmographic characteristics?
What processes and approaches have been used to manage and communicate with trade allies? Is TA communication and management effective from staff and trade ally perspectives? How well have TA trainings been attended and are there any suggested topics either related to aspects of the programs or new technologies?
Are there opportunities to offer and/or expand building automation system (BAS) to the space heating offering?
FOOD SERVICE SPECIFIC: To what extent has Washington’s energy efficient code enhancements moved the market away from new food service equipment purchases to used food service equipment purchases?
FOOD SERVICE SPECIFIC: To what extent could additional food service-related measures increase program savings? Currently, CNGC offers griddles and ovens; what other food-service related equipment exists that exceed the ENERGY STAR standard and what is that equipment’s market penetration?

7.2.3.1 Recruitment Script

Hello [NAME],

My name is [ADM NAME] and I work for ADM Associates. We are working with CNGC to do an evaluation of their commercial program and they want to better understand the program experience of contractors. As part of this research, we would like to talk with participating contractors, like yourself, about your experience with the program.

We’d like to invite you to participate in a phone interview sometime this week or next. The discussion should take about 30 to 45 minutes to complete and as a thank you for your time, you will receive a \$50 e-gift card, which can be redeemed online at a variety of retailers. Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM’s privacy police at <https://www.admenergy.com/privacy>. Would you be interested and available to share your feedback?

Your feedback is greatly appreciated and will help CNGC improve their program for contractors and customers.

Best,

7.2.3.2 Interview Guide

7.2.3.2.1 Introduction

Thank you for taking the time to talk with us today. My name is [NAME] and I work for ADM Associates. We are speaking today so that I can better understand your participation in CNGC's commercial programs. Our discussion will contribute to our understanding and evaluation of the program. Please be as open as possible.

Your responses are confidential and will be used for research purposes only. If you have questions about how we treat collected data, please see ADM's privacy policy at <https://www.admenergy.com/privacy>. I would like to record our discussion for notetaking purposes, is that alright with you?

Do you have any questions before we get started?

7.2.3.2.2 Roles & Responsibilities

Objective: Learn how market actors learn about the commercial program and gather insight regarding their understanding of the program.

1. Can you tell me a little bit about your business and the type of work you do?
 1. How long have you been in business?
 2. What is your role?
 3. What types of equipment do you typically focus on? –will determine which questions to ask next

[Q 2– Q3: For food service TAs]

2. How would you describe your business? If needed, for example, are you a wholesale distributor, direct sale manufacturer, brand dealer, design consultant, or buyer group.
3. Do you sell used food service equipment?

[Q4 – Q6: For heating contractor TAs]

4. Can you tell me about the range of services your business provides?
5. Do you install residential systems in addition to commercial systems?
6. Does your business install insulation in businesses? If a customer was interested in adding insulation as part of a heating equipment project, could you assist them in some way (e.g., provide a referral)?

[Q7 – Q9 : For water contractor TAs]

7. Can you tell me about the range of services your business provides?
8. Do you install residential systems in addition to commercial systems?
9. Do you install laundry equipment?
10. Does your business install water saving low-flow devices such as pre rinse spray valves and faucet aerators as part of the services you provide clients?

[Q11– Q12 : For weatherization contractor TAs]

11. Can you tell me about the range of services your business provides?
12. How long have you worked with CNGC's Commercial Program?
 1. Do you participate in other CNGC residential programs?
 2. Do you participate in other utilities' energy efficiency programs?
13. How did you first learn about the program? What motivated you to participate?
14. About what share of business involves projects that receive incentives from CNGC?

7.2.3.2.3 Market Conditions & Customer Outreach (Heating, Water, Foodservice)

Objective: How do trade allies market the program and energy efficiency more generally to customers. How is the current market impacting trade allies, especially regarding energy-efficiency equipment.

What are the barriers to participation for trade allies and their customers

15. When talking with customers about installing or purchasing new equipment, how often do you discuss installing more efficient equipment options?
16. What benefits of the more efficient equipment do you talk about? What benefits do your customers tend to be most interested in?
17. What concerns do customers raise about efficient equipment options? How do you talk about these concerns with them? (if cost is mentioned, do the CNGC incentives address the concerns about cost?)
18. Thinking about the types of businesses that get incentives for efficient equipment, are there types of businesses that tend to choose not to install more efficient equipment?

7.2.3.2.4 Market Conditions & Customer Outreach (Heating)

19. Does your business install building automation or energy management systems?
20. When would you recommend to a customer to install a BAS or EMS? In other words, when does it make sense for a business to install one of these systems? When installing demand controlled ventilation do you recommend also installing a BAS or EMS?
21. What conditions would make a BAS or EMS most effective for reducing natural gas use?
22. What concerns do customers raise about installing a BAS or EMS?

7.2.3.2.5 Market Conditions & Customer Outreach (Foodservice)

23. The 2021 Washington Appliance Standards made ENERGY STAR commercial fryers and commercial steam cookers the standard efficiency option among other changes. Have you noticed an impact of these appliance standards on sales of commercial food preparation equipment?
24. Do you know if the appliance standards have shifted sales towards used equipment and away from new equipment purchases? About how much of a shift has occurred?
25. Do you think that the shift has also impacted sales of equipment not directly impacted by the Washington standards? That is, are customers also buying more used versions of other types of food preparation equipment?
26. Are there versions of commercial steam cookers and commercial fryers that are more energy efficient than the ENERGY STAR models that CNGC should consider offering rebates for?

7.2.3.2.6 Market Conditions & Customer Outreach (Weatherization)

27. How insulation/window rebate projects start? What concerns or circumstances are customers in when they are looking at doing one of these projects?
 1. Do you engage in direct customer outreach to encourage customers to complete a CNGC weatherization project?
28. What benefits do you talk about with customers? What concerns do you hear from them?

7.2.3.2.7 Program Participation & Process

Objective: To describe the process of participating in the program. How is the program experienced by builders?

29. Can you describe the rebate application process from your perspective?
 1. Anything confusing about that process?

30. Is there any equipment that is not currently eligible for a program incentive, but you think should be?

7.2.3.2.8 Program Satisfaction

31. Have you attended any kind of training provided by CNGC regarding their commercial program(s)? If yes, please describe.

32. Is there any additional training that you would like to be provided?

33. How often do you communicate with CNGC representatives regarding the Commercial program? Please describe that communication.

34. On a scale of 1 through 5 where 1 means “not at all satisfied” and 5 means “completely satisfied” how satisfied are you with the following program elements?

1. The program application process
2. The range of measures that qualify for the program
3. The amount of time it takes to receive the incentive
4. The program overall

35. What do you think works particularly well for the program?

36. What do you find challenging about working with the program?

37. Do you have any suggestions for improving the program?