

XCEL ENERGY

Colorado Heating Efficiency Product Process Evaluation

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EXECUTIVE SUMMARY

2019 Heating Efficiency Product



Introduction

Xcel Energy contracted with EMI Consulting to evaluate the 2018 and 2019 Heating Efficiency Product in Colorado. The product offers prescriptive rebates to Xcel Energy commercial customers who install qualifying equipment in existing or new buildings. Rebates are offered to encourage customers to purchase energy-efficient equipment by lowering the upfront premium costs associated with this equipment. Primarily focused on gas savings, the customer base for this product is largely composed of mid- and small-sized business gas customers, because the majority of large businesses opt out of gas commodity services from Xcel Energy and are therefore ineligible to participate in Xcel Energy demand side management products. This customer group is inherently harder to reach and more cost sensitive.

As part of the evaluation, EMI Consulting assessed participating customer satisfaction with the product, customer attitudes regarding the application process, and opportunities to modify internal processes to capture a higher percentage of projects that could yield energy savings. This summary includes the key findings and recommendations from our evaluation.

Methods

Participating Customer Interviews (n=10)

Trade Partner interviews (n=10)

Peer program benchmarking interviews (n=4)

Fielding:

Apr 2019 – Sep 2019

Summary of Findings



Participating customers are **generally satisfied** with the product. Most interviewees reported satisfaction with all aspects of the product.



While many trade partners are familiar with Xcel Energy rebate programs, they are **less aware** of the Heating Efficiency Product specifically.



Major barriers to participation included a **lack of qualified installers** and **difficulty understanding product qualifications**. Trade partners cited **lack of product awareness**.



Sales team training is needed to ensure team fully understands product components and are **equipped to provide proactive, high-touch assistance to customers**.



Increased product-related outreach and trade partner **training on eligible equipment** is needed.

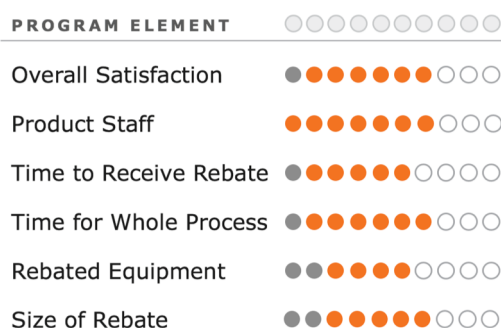


Trade partners suggested considering **expanding qualifying equipment options**. Peer interviewees offered **additional equipment rebates**.

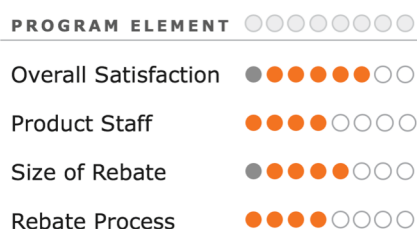
Satisfaction with the Product

Participating customers and trade partners are satisfied.

Customer Satisfaction



Trade Partner Satisfaction



- 4-5 Satisfied/Extremely Satisfied
- 3 Neither Satisfied nor Unsatisfied
- 1-2 Extremely Unsatisfied/Unsatisfied
- No response

EXECUTIVE SUMMARY

2019 Heating Efficiency Product



Awareness, Motivations, & Barriers



Participants primarily learned about the product from colleagues. **None of the participants reported to learn about the product from their trade partner**, despite trade partners reporting that they mention Xcel Energy rebates generally during their sales process.



Trade partners are aware of Xcel Energy products in general, but **only one expressed knowledge of Heating Efficiency Rebates specifically**.



Participants were motivated to purchase energy efficient equipment for energy savings and to participate in the product to lower their costs, but they **typically decided on their equipment and then looked to determine if rebates applied**.

2 MAJOR BARRIERS

Limited number of qualified trade partners



- Difficult to find trade partner familiar with product during recruiting.
- Difficult to find trade partner knowledgeable in installation requirements for energy efficient boilers.
- Some trade partners did not believe high efficiency boilers provide enough energy savings to justify the additional costs.

Difficulty understanding requirements



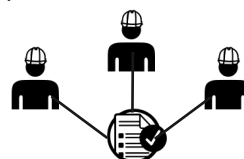
- Requires a lot of leg work to understand if equipment qualifies.
- Process to determine if equipment qualifies takes time.
- Requirements appeared arbitrary to some.

Application Process

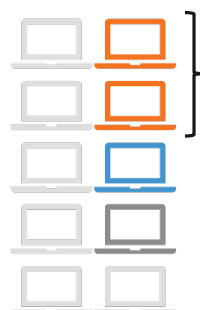
Participating customers felt the application process was clear-cut and straight-forward and completed their applications **entirely** or **partially** themselves.



Trade partners often reported that multiple people at their company were involved in the application process.



Some participating customers were aware of the online tool, but few have used it. None of the trade partners have used it.



2 participating customers **experienced** with online form.

3 participating customers **used** the online form.

4 participating customers **aware** of the online form.



4 trade partners **aware** of the online form.

EXECUTIVE SUMMARY

2019 Heating Efficiency Product



Conclusions & Recommendations

Trade Partners are familiar with Xcel Energy rebate programs but less aware of the Heating Efficiency product specifically.

Many trade partner email addresses did not work.

Some trade partners reported reluctance to recommend rebate-eligible equipment.

Participating customers reported difficulties finding available trade partners familiar with high efficiency equipment.

Interviewees rated Xcel Energy staff highly, but some reported they received mixed messages about the rebates from staff.

Forecasting energy savings for the product was challenging.

Participating customers and trade partners continued to use paper application forms despite availability of the online form.

Trade partners hesitant to recommend high-efficiency boilers.

Participants reported investigating rebate opportunities after they decided to purchase a particular equipment type.

Peer programs offer a wide variety of gas savings measures.

Increase marketing and direct engagement with trade partners who participated more than once. This will encourage active trade partners to market the product to their customers and creates a group that can help Xcel Energy understand trade partner needs and questions.

Assign staff to maintain and track trade partner email information to ensure emails remain up-to-date (for both administrative and field staff).

Increase trade partner engagement by supporting trainings to increase product and equipment awareness. Supporting trade partners trainings could increase the number of trade partners competent to install high-efficiency equipment and provide another avenue to market the product to trade partners. This could help mitigate the barrier customer's faced in finding contractors qualified to install high-efficiency equipment.

To prevent miscommunications, increase training for Xcel Energy sales staff, focusing on those who support smaller commercial and industrial customers, on product requirements and eligibility.

Improve data management practices relating to documentation of early project stages in Salesforce. Needs to be addressed:

- Adjust staff goal structure to address risk of staff not meeting their goals.
- Identify (or clarify) criteria for when projects and energy savings should be entered into Salesforce.
- Determine a method for how to make data entry/data management less of a burden on sales team.
- Provide guidance for typical energy savings for common projects.

(would need to be implemented at the portfolio level)

Provide training to customers and trade partners on how to use the online application form.

- Online link to video demonstration
- In-person demonstrations

Examine opportunities to improve the online application process to make it easier to complete and manage applications, including ability to complete applications overtime.

(would need to be implemented at the portfolio level)

Adjust incentive structure to encourage more customers to install mid-level efficiency boilers, instead of lower-level efficiency boilers.

Increase opportunities to influence customers when they are deciding which equipment model to purchase:

- Increase trade partner awareness of product.
- Increasing web presence of Xcel Energy rebates on search engines.

(would need to be implemented at the portfolio level)

Assess feasibility of including additional measures offered by the product.

(see list of measures from peers)

1. INTRODUCTION

Xcel Energy offers a comprehensive array of energy services and products to its customers, including demand side management (DSM). For the evaluations of its 2018 and 2019 products, Xcel Energy sought to understand the role each product plays in changing the marketplace, to analyze that influence on customer choices, and to use the findings to improve customer experience and ensure industry-leading product performance. To accomplish this, Xcel Energy contracted with EMI Consulting to evaluate five products offered in Colorado and Minnesota in 2019.¹ This included the Heating Efficiency Product in Colorado, discussed in this report. This introduction includes an overview of the product and the evaluation approach and describes the organization of this report.

1.1 PRODUCT OVERVIEW

The Colorado Heating Efficiency Product offers prescriptive rebates to Xcel Energy commercial customers who install qualifying equipment in existing or new buildings. Rebates are offered to encourage customers to purchase energy-efficient equipment by lowering the upfront premium costs associated with this equipment. In 2018, 114 customers participated in the product and it claimed 25,082 kWh and 28,763 Dth in energy savings from prescriptive rebates provided in Colorado (Table 1-1. Colorado Heating Efficiency Savings by Measure – 2018). This product is primarily focused on achieving gas savings. Because the majority of large businesses opt out of gas commodity services from Xcel Energy, they are not eligible to participate in Xcel Energy demand side management products. Therefore, the product's customer base is largely comprised of mid-sized and small-sized business gas customers. This group, inherently, is harder to reach and more cost sensitive.

¹ The products selected for evaluation in 2019 include: Heating Efficiency (CO), Motor & Drive Efficiency (CO), Single Family Weatherization (CO), Energy Efficient New Homes (MN), Residential Cooling (MN).

Table 1-1. Colorado Heating Efficiency Savings by Measure – 2018

Measure	Units		kWh		Therms	
	Quantity	% of total	Quantity	% of total	Quantity	% of total
Boiler Tune-Up ^a	61	21%	N/A	N/A	17,132	6%
New Hot Water Boiler ≥ 92%	61	21%	N/A	N/A	75,567	26%
High Efficiency Water Heaters	48	16%	N/A	N/A	153,865	53%
Pipe Insulation 105-200 Degree	39	13%	N/A	N/A	5,991	2%
94% Efficient Furnaces ^a	24	8%	N/A	N/A	4,790	2%
Unit Heaters – Non-Condensing	17	6%	N/A	N/A	9,442	3%
New Hot Water Boiler ≥ 85%	14	5%	N/A	N/A	7,784	3%
Unit Heaters – Infrared	8	3%	8,277	33%	4,828	2%
92% Efficient Furnaces ^a	7	2%	N/A	N/A	950	0%
EC Fan Motor on New Commercial Furnace ^a	6	2%	16,805	67%	0	0%
Other	11	4%	N/A	N/A	7284	3%
TOTAL	296^b	100%	25,082	100%	287,633	100%

^a Xcel Energy does not plan to continue pursuing these measures starting in July 2019.

The following modification was made to the product, starting in July 2019:

- Removal of boiler tune-ups, ECM retrofit motors, and gas furnaces from the list of measures.

Product staff are also considering one possible modification for future cycles:

- Depending on feasibility of implementation, product staff may consider adding rebates for food service equipment to influence sales of this equipment and capture savings through the product.²

² Toward the end of 2019, Xcel Energy also reported that the following measures were under consideration for future years: steam traps, custom measures, smart thermostats.

According to Xcel Energy staff, the Colorado Heating Efficiency Product relies heavily on an active trade partner network, as well as active involvement from the sales team in selling heating upgrades to their customers. While Xcel Energy does not actively endorse or promote individual trade partners, they play an integral part in advancing the product, according to Xcel Energy staff. Internally, Xcel Energy relies on a trade partner manager to maintain these relationships. To support trade partners, Xcel Energy posts contact information for active trade partners on its website. It hosts various portfolio-wide meetings with trade partners about the DSM portfolio that focus on updates to offerings and processes. Xcel Energy also hosts meetings specific for the Heating Efficiency Product (the Heating Advisory Meeting). Although it conducted one of these meetings in September 2019, this type of meeting has not occurred in the past two years.³

1.2 EVALUATION OVERVIEW

The evaluation team designed a process evaluation of the Heating Efficiency Product to provide information on five key research topics:

- Customer and trade partner satisfaction with the product
- Customer and trade partner experiences with the product, including barriers to participation
- Opportunities to improve the application process
- Opportunities for greater engagement with the product
- Opportunities to expand the product into new markets

Table 1-2. presents an overview of the research topics and data sources used in this evaluation of the Colorado Heating Efficiency Product. In addition to these data collection efforts, the evaluation team also conducted six interviews with eight Xcel Energy staff. These interviews served to identify research needs and also provide feedback on internal processes.

³ Staff did not report exact timing of the last Heating Advisory Meeting, however it has been more than two years since the previous meeting. The September 2019 meeting occurred after the evaluation team interviewed trade partners. Preliminary results from the staff and trade partner interviews, conducted as part of this research, indicated that such a meeting would be beneficial.

Table 1-2. Colorado Heating Efficiency Process Evaluation Methods & Objectives

Primary Research Objectives	 Participant Interviews (n=10)	 Trade Partner Interviews (n=10)	 Benchmarking (n=4 ^a)
Analyze customer and trade partner satisfaction with the product	X	X	
Analyze customer and trade partner experiences, including barriers to participation	X	X	
Identify opportunities to improve application process	X	X	
Identify methods to better engage trade partners		X	X
Identify opportunities to expand to new markets			X

^a The evaluation team collected data on measures and incentives from two additional peer utilities.

1.3 REPORT ORGANIZATION

The following chapter presents the process evaluation approach and findings. Conclusions and recommendations are presented in 3. The evaluation plan, data collection instruments, and results by data collection effort can be accessed in this report's appendices.

2. PROCESS EVALUATION

The evaluation team conducted a process evaluation to determine how Xcel Energy can optimize the design and delivery of the Heating Efficiency Product to its customers. Specific objectives of the process evaluation are listed in the bullets below:

- Analyze customer and trade partner satisfaction with the product.
- Analyze customer and trade partner experiences with the product, including barriers to participation.
- Identify opportunities to improve the application process.
- Identify opportunities for greater engagement with the product.
- Identify opportunities to expand the product into new markets.

To accomplish these objectives, the evaluation team collected feedback from product staff, participating customers, trade partners in the Xcel Energy Colorado territory, and program staff implementing similar programs at peer utilities. This chapter presents key findings from the process evaluation, the evaluation team's approach to conducting the process evaluation, staff experiences implementing the product, and then specific findings relating to each evaluation objective. These findings inform the conclusions and recommendations presented in the final chapter of this report.

2.1 KEY FINDINGS

The evaluation team found that participating customers and trade partners were satisfied with the Heating Efficiency Product overall. However, only a limited number of trade partners reported that they were familiar enough with the product to effectively market it to their customers. Additionally, some trade partners were reluctant to recommend high-efficiency boilers, stating that the equipment did not provide enough savings to justify the costs. As a result, participating customer interviewees reported conducting their own research to determine if their selected equipment qualified for a rebate. Participating customers selected equipment based on their needs and specifications (both with and without trade partner input) and then, afterwards, checked with Xcel Energy to determine whether their selected equipment qualified for rebates. With regards to the application process, few interviewees reported using the online form, because it did not provide an easy way to save a partially completed application for later or for another team member to finish.

From an internal perspective, the evaluation team identified two findings related to improving processes between the sales team and the product team.⁴ First, while interviewees rated Xcel Energy staff highly, two of the ten participating customer interviewees reported receiving incorrect information from sales team representatives about the rebates process and/or incentives. This highlights a need to ensure sales team members are knowledgeable about the Heating Efficiency Product, particularly since many customers are researching rebates on their own. Additionally, staff reported challenges when forecasting energy savings and reported a need for the sales and product teams to collaborate in order to make the process more efficient.

Section 2.2 describes the overall approach used for the process evaluation. It is followed, in Section **Error! Reference source not found.**, with the detailed results. The next chapter will present the evaluation team's recommendations based on these results.

2.2 APPROACH

To accomplish the evaluation objectives for the Heating Efficiency Product, the evaluation team completed a suite of intersecting and complementary research activities in 2019. The detailed evaluation plan can be found in Appendix A. The following discussion highlights the evaluation team's approach to conduct each of the following research activities:

- Staff interviews
- Participating customer surveys
- Trade partner interviews
- Benchmarking interviews

STAFF INTERVIEWS

The evaluation team conducted six in-depth interviews with eight Xcel Energy personnel involved with the Colorado Heating Efficiency Product early in the course of this evaluation, including the current product manager, a former product manager, engineers, an account manager, business solutions center (BSC) representatives and a trade partner manager. The staff interviews covered the following topics:

- Assess the extent to which the product design supports product objectives and customer service/satisfaction objectives.
- Determine the degree to which product resources are sufficient to conduct product activities with fidelity to the implementation plan.
- Collect staff feedback on implementation successes and challenges.

⁴ The sales team is comprised of the Account Representatives and the Business Solutions Center representatives. The product team is comprised of the product manager and marketing assistant.

Appendix B.1 presents the interview guide used for these discussions and Appendix C.1 presents specific results to the staff interviews.

PARTICIPATING CUSTOMER INTERVIEWS

The evaluation team conducted 10 in-depth telephone interviews with participating customers using customer records from Xcel Energy for the sample frames. For the purposes of this evaluation, a participating customer was defined as any customer that closed a Heating Efficiency Product opportunity between the fourth quarter of 2018 and the first quarter of 2019.⁵ We attempted to interview participating customers who were provided with an account manager or those that did not and who installed different types of measures. Ultimately, the evaluation team spoke to the following types of customers:

- Building types (five of the interviewed participating customers had multiple facilities associated with their organization):
 - 3 Multifamily buildings
 - 2 Offices
 - 1 Church
 - 1 Elementary School
 - 1 HOA clubhouse
 - 1 Camp
 - 1 Retirement community
- Installed measures:
 - 6 Hot water boilers $\geq 92\%$
 - 4 High efficiency water heaters

The participating customer interview was designed to address the following process objectives:

- Assess how customers learned about the Heating Efficiency Product and determine motivations for participation.
- Identify barriers to participation.
- Explore customer experiences and satisfaction with the product, including experiences with the application process, the equipment, and their contractor.

Appendix B.2 contains the questionnaire used for the participating customer interview and Appendix C.2 presents specific results from those interviews.

⁵ The evaluation team only interviewed customers that had installed measures that Xcel Energy planned to continue pursuing in 2019 and beyond. It removed participating customers from the sample frame that had only performed a tune-up, installed a furnace, or installed an ECM on a new furnace.

TRADE PARTNER INTERVIEWS

In addition to the participating customer interviews, the evaluation team conducted ten in-depth interviews with trade partners (i.e., contractors, vendors, and distributors). The sample included 48 contractors who had participated in the product and 17 distributors. The evaluation team planned to speak with a total of ten trade partners (two to three distributors and seven to eight contractors). For the contractor interviews, the evaluation team wanted to interview a mix of active contractors (those that completed multiple projects) and less-active contractors (those that completed few projects). When reviewing the list of contractors, the evaluation team found that it needed to define active contractors as those conducting more than one project, and less active contractors as those conducting only one project. This is because it found there were only nine contractors in total that had conducted more than one project and the most projects any one contractor had installed was three.⁶

The trade partner research addressed the following process topics:

- Motivations to the contractor's decision to participate in the product
- Barriers to participation in the product
- Opportunities to increase participation in the product
- Motivations for customers to participate in the product
- Experiences with the Heating Efficiency application, particularly with the online application
- Satisfaction with the product
- Emerging markets and/or technologies that the program should include

The evaluation team experienced some difficulty in recruiting trade partners for the interviews. Eight out of thirteen trade partners that the evaluation team spoke with were either not aware of the Heating Efficiency Product or were not aware that their customer had applied for the rebate. Furthermore, 26% of the contacts in the sample had inaccurate or out-of-date emails or phone numbers.

Ultimately, the evaluation team completed interviews with eight contracting/installer companies and two distributors. Interviewees reported implementing few Heating Efficiency Product projects, with six trade partners having completed one project and two completing three. These trade partners installed a variety of eligible equipment: six trade partners installed a new hot water boiler $\geq 92\%$, four installed a high efficiency water heater, and two installed a high-efficiency tankless water heater.

⁶ Projects that focused on measures removed from the product in 2019 were not included in the population counts.

Appendix B.3 presents the interview guides used for the trade partner research and Appendix C.3 presents specific results from the trade partner interviews.

BENCHMARKING INTERVIEWS

The evaluation team examined six peer utilities to benchmark the Xcel Energy product against others in the industry, assessing product design and delivery and key performance indicators (e.g., participation levels, free-ridership). The evaluation team conducted in-depth interviews with implementation staff from four of these utility programs to address the following topics:

- Understand how other utilities structure their heating offerings.
- Identify any measures offered by other utilities that could be applicable to the Colorado heating market.
- Identify challenges faced by other utilities in promoting heating efficiency technologies.
- Examine perceptions of how the heating market is changing, and what may be challenging in the future.
- Identify successes of other utility programs and how those might be applied to the Colorado Heating Efficiency Product.
- Examine impacts low gas prices have had on the Heating Efficiency Product and strategies to mitigate these impacts.

To provide important contextual information, additional descriptive program information was collected where possible, including eligible measures and customers, product implementation strategies and engagement practices, and participation levels.

Appendix B.4 contains the interview guide used for the benchmarking interviews and Appendix C.4 presents specific results to the benchmarking interviews.

The evaluation team synthesized results across all of these data collection efforts, to help Xcel Energy interpret interviewee perspectives and identify actionable opportunities for improving product operations and marketing. The remainder of this chapter presents results on the following evaluation topics:

- Staff experiences implementing the product
- Participating customer and trade partner satisfaction
- Participating customer and trade partner experiences with the product
- Opportunities to improve the application process
- Opportunities for greater engagement with the product
- Opportunities to expand the product into new markets

2.3 STAFF EXPERIENCES IMPLEMENTING THE PRODUCT

The evaluation team found that staff were able to implement the product as planned, however faced two primary challenges: (1) forecasting energy savings and (2) engaging customers to participate in the product.

With regards to forecasting energy savings, staff reported that it was challenging to forecast potential energy savings for all Xcel Energy products, including Heating Efficiency, suggesting a portfolio-wide challenge. While the Salesforce tracking tool allows staff to document potential new projects, the sales teams use the fields inconsistently for a variety of reasons, including a desire to limit risk relating to meeting goals, insufficient data on a new project, and workflows that do not necessarily rely on Salesforce.⁷ This challenge is not suspected to be unique to the Heating Efficiency product, but it is rather a portfolio-wide challenge. As a result, the evaluation team recommended this issue be addressed at the portfolio-level, and therefore we did not examine this topic in any more detail within the context of this evaluation effort.

Instead, the evaluation team focused its research effort on the reported challenge of limited product participation. Product staff attributed limited participation to a few factors:

- Large customers typically do not qualify for the product because they are usually gas transport customers.⁸
- Small customers face significant cost barriers to replacing gas equipment.
- Low gas costs also limit customer interest in pursuing gas efficiency projects.

As a result of these concerns, the evaluation team designed much of its research effort around how to better engage customers and trade partners with the product. The next section explores results relating to satisfaction, and then it follows up on this theme in the following sections when exploring participating customer and trade partner experiences with the product and presenting their feedback on opportunities for product improvements.

⁷ The product manager reported the following fields to be inconsistently used: prospecting, identification, definition, pre-approval, and measure implementation. The product manager reported they could manage around the majority of these inconsistencies; however, he reported Salesforce should force staff to enter actual estimated energy savings data into the last preliminary stage “measure implementation” rather than allowing staff to enter a one, an indicator that the reported energy savings were not reflective of the actual project.

⁸ Transport gas customers do not pay the DSM Cost Adjustment Charge and are therefore not eligible to participate in the product.

2.4 PARTICIPATING CUSTOMER & TRADE PARTNER SATISFACTION

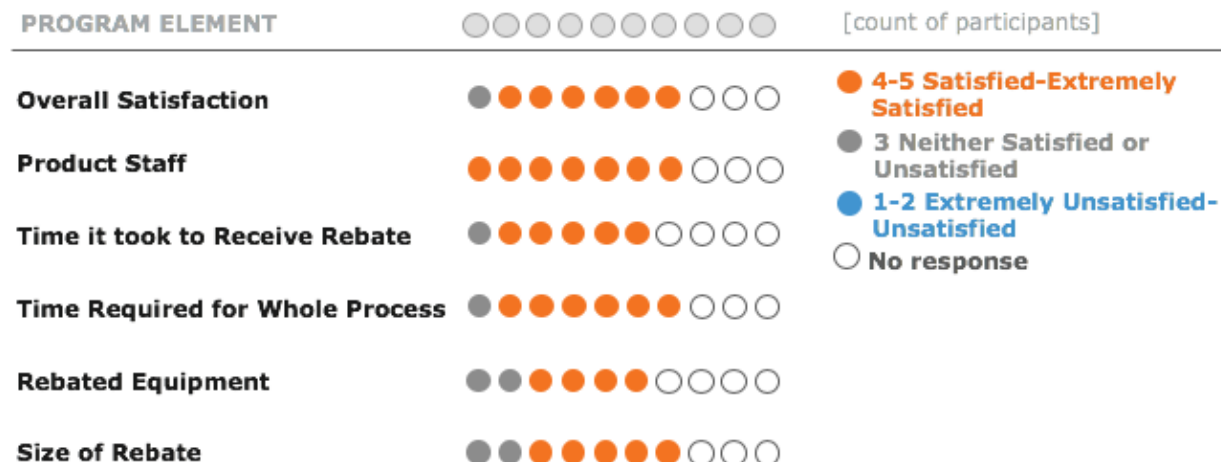
Following the staff interviews, the first program evaluation research objective was to assess participating customer and trade partner satisfaction with the Heating Efficiency Product. The evaluation team drew from in-depth interviews with participating customers and trade partners to understand their levels of satisfaction with the Heating Efficiency Product, what they liked about it, and what they thought could be improved. Findings indicate that overall satisfaction with the product was high among both participating customers and trade partners, and no interviewees reported dissatisfaction with the product. Both participating customers and trade partners ranked Xcel Energy staff highly. However two customers reported receiving mixed messages about the product from staff, and one felt response times from staff could be slow. The remainder of this section presents satisfaction results first for participating customers and then trade partners.

PARTICIPATING CUSTOMERS

As shown in Figure 2-1, six participating customers ranked their overall satisfaction with the Heating Efficiency Product as a four or five, on a scale of one (extremely unsatisfied) to five (extremely satisfied). One customer reported being neither satisfaction nor unsatisfied. The remaining three did not provide satisfaction scores. Participating customers generally expressed positive reactions to the product, with one interviewee stating, "You have a satisfied customer!"

Despite the overwhelming satisfaction with the product, one of the interviewees that did not provide satisfaction results expressed significant dissatisfaction with their experience with the Heating Efficiency Product, stemming from miscommunication with Xcel Energy staff. It was necessary for the evaluation team to end the interview early and his comments, therefore are not reflected in Table 2-1 **Error! Reference source not found.** This customer's experience appeared to be an anomaly, and the evaluation team did not expect his dissatisfaction to be representative of the participating customer population.

Table 2-1. Participating Customer Satisfaction Scores



All participating customer interviewees ranked their satisfaction with product staff highly, all providing satisfied or extremely satisfied scores. While talking through the rebate process, these customers reported frequent contact with product staff, who they consulted on determining equipment eligibility and application requirements. One participating customer noted, “We were calling constantly. There was a lot of hand-holding, you might call it.” Interviewees also felt that they knew whom to contact, if they had issues or questions. These results suggested that high-touch relationships between customers and product staff was critical to the high satisfaction ratings for the product. Two customers expressed some frustration with product staff though, noting that response time from the Account Manager was sometimes longer than they expected and that there were miscommunications from staff about equipment eligibility. These responses are discussed in more depth in the Experiences with the Application Process section.

Participating customers were also satisfied with the time it took to receive their rebate, with five respondents ranking it with a score of satisfied or extremely satisfied. One customer provided a score of neither satisfied or unsatisfied, stating that the turnaround “could be faster.” Another declined to respond to this question, stating that he did not pay attention to how long it took to receive his rebate.

The time it took to go through the entire rebate process received similarly high satisfaction scores. Six of seven participating customer interviewees ranked this program element a four or five out of five (satisfied or extremely satisfied). The one respondent who ranked it a three (neither satisfied or unsatisfied) had a large property and went through the rebate process for multiple boilers they replaced, stating “we have 36 boilers, so we had to go to each, get information off the boiler itself, then come back through and input all the information. There's a lot of forms.” These results suggest that the rebate process can become burdensome for customers completing applications for multiple pieces of equipment.

Four respondents stated that they were satisfied or extremely satisfied with the rebated equipment while two stated they were neither satisfied or unsatisfied. One

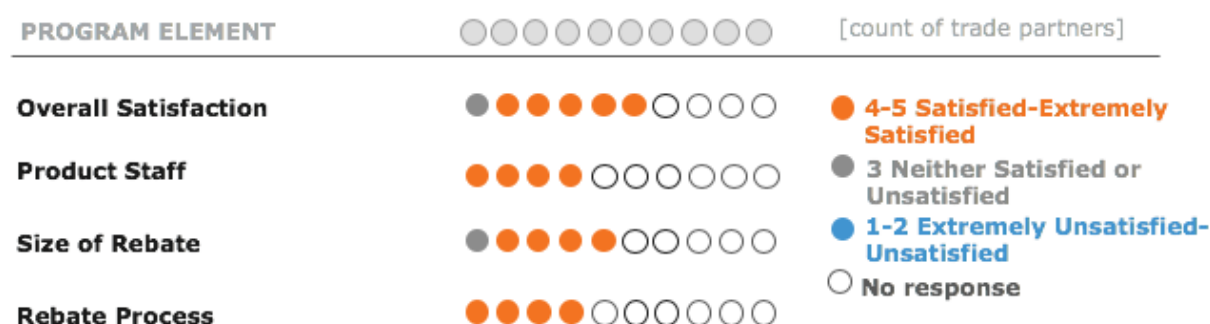
respondent was neither satisfied or unsatisfied simply noted that “it’s [the] equipment, it always fails,” suggesting that the ranking he provided was a feeling toward heating equipment generally and not necessarily specific to his high efficiency equipment. The other respondent who ranked his satisfaction for the rebated equipment as neither satisfied or unsatisfied had multiple facilities across the country, and typically used three different brands – he noted that some brands were more reliable than others, but he would not rate his satisfaction with any of the three brands of high efficiency equipment he used as a “very satisfied.”

Finally, five participating customers stated that they were satisfied or extremely satisfied with the amount of the Heating Efficiency Product rebates, while two were neither satisfied or unsatisfied. One participating customer, who was neither satisfied or unsatisfied, stated, “the thing to keep in mind is how much time and labor it takes to go through the forms to make it worthwhile.” This could suggest participating customers consider the time and effort associated with completing the rebate process when judging the appropriateness of the rebates and/or even whether they would participate in the product. This particular customer pursued the application process for several pieces of equipment, making the process more time consuming than if they had only been pursuing a rebate for one piece of equipment. The other customer who was neither satisfied or unsatisfied stated “it could always be bigger.” This was a common sentiment amongst participating customers when asked this question; they were generally satisfied with the amount of the rebates but would always appreciate a larger rebate. Two respondents who reported satisfaction for this element provided additional feedback, with one noting that, while he felt the boiler rebates were fairly substantial, the rebates for water heaters seemed low: “... a water heater can still be thousands of dollars.” The other felt that the “rebates could be more motivating.”

TRADE PARTNERS

Trade partners, like participating customers, ranked their satisfaction with the product very highly, as shown in Figure 2-1. Five out of six trade partners indicated they were satisfied or extremely satisfied with the product overall. One trade partner reported neither satisfied or unsatisfied, but his knowledge of the program was limited, and he declined to answer the remainder of the satisfaction questions because of this. This trade partner felt that the product could be improved by increasing awareness of the product among trade partners. Two distributors were not asked questions about satisfaction with the product. Additionally, two trade partners did not feel they knew enough about the product to answer satisfaction questions.

Figure 2-1. Trade Partner Satisfaction Scores^a



a. Two of the trade partners listed with "no response" were considered distributors and were not asked to report satisfaction scores.

Trade partners also rated their satisfaction with the product staff highly, with each respondent stating they were satisfied or extremely satisfied. Four interviewees had no experience with the product staff and declined to answer the question.

Four trade partners felt the amount of the rebate was satisfactory, reporting they were satisfied or extremely satisfied. One trade partner, who was neither satisfied or unsatisfied with the amount of the rebate, thought that mid-efficiency boiler rebates should be increased. This respondent stated that mid-efficiency boilers have the lowest lifecycle costs among boiler models, except for new construction. Another respondent, who reported satisfaction with the rebate size, brought up combination units, which provide both domestic hot water and heating. He felt that these units existed in a gray area, because they did not really fit into water heating or space heating. The respondent thought that this discrepancy could cause the unit to be incented incorrectly.

Lastly, trade partners were satisfied with the rebate process, with four respondents ranking their satisfaction with the process element as a satisfied or extremely satisfied. One of these respondents stated that the process was "pretty easy to understand and follow." Four other respondents had limited knowledge of the product, though, and declined to answer.

2.5 PARTICIPATING CUSTOMER AND TRADE PARTNER EXPERIENCES

The next research objective was to assess participating customer and trade partner experiences with the Heating Efficiency Product. While trade partners reported to discuss rebates in general with their customers, participating customers reported hearing about the rebates through other people or from prior participation in Xcel Energy rebate products. Participating customers reported they were motivated to install high-efficiency equipment because of the energy and cost savings, and they were motivated to participate in the product because it reduced their costs for the equipment. Trade partners and participating customers both reported participation

was generally an easy process, and most reported using the paper version of the application because it was easier than the online application to complete.

This section explores the participating customer and trade partner interview results in more detail and is organized by the following themes:

- Awareness of the Heating Efficiency Product
- Motivations to participate in the product
- Barriers to further participation
- Experiences with the application process
- Experiences with the rebate process

AWARENESS OF THE HEATING EFFICIENCY PRODUCT

The evaluation team found that both participating customers and trade partners primarily learned about the product through word of mouth and through prior participation in other Xcel Energy products. Notably, no participating customers said they initially heard about the product through their trade partner—despite trade partner reports that they typically discuss Xcel Energy rebates during their sales processes. This sub-section first presents results from the participating customer interviews and then presents results from the trade partner interviews.

PARTICIPATING CUSTOMERS

As shown in Figure 2-2, participating customers in the Heating Efficiency Product first learned of the product through a variety of sources, though interestingly none of these sources included the customer's trade partner who installed the equipment.

Figure 2-2. Sources of Product Awareness for Participating Customers



Participating customers stated that they primarily learned about the product via word of mouth, with five respondents stating that they heard about it from industry peers. These respondents worked in industries including construction, property management, and energy engineering. Two participating customers said they first heard about the Heating Efficiency Product through their prior participation in other Xcel Energy products. One of these interviewees participated in the HomeSmart

program and had previously applied for rebates on equipment for their personal residence. The other participated in an energy audit for their HOA's clubhouse and replaced their water heating equipment on the suggestion of the Xcel Energy auditor. Two other customers learned of the product through Xcel Energy staff, one of whom was contacted by a sales team representative who had been in contact with the person previously in the interviewee's position. The other called Xcel Energy Customer Service after purchasing his heating equipment to see if rebates were available and was referred to the Heating Efficiency Product.

TRADE PARTNERS

Trade partner interviewees generally had limited knowledge of the Heating Efficiency Product; only one expressed knowledge in the product. These findings corroborate with experiences the evaluation team experienced when recruiting trade partners for the interviews, whereby five additional trade partners declined to be interviewed because they reported either to not know anything about the rebated project or to not be familiar with the product.

As shown in Figure 2-3, three interviewees stated that they had no knowledge of the product whatsoever, despite being listed as the trade partner on a participating project. In one case, the application was completed entirely by the customer. In another case, the application was submitted without the knowledge of the trade partner: "I honestly don't know anything about it. It was the customer who did the rebate." In the third case, the trade partner was aware of Xcel Energy rebate products but did not know specifically about the Heating Efficiency Product: "I've known about Xcel rebate programs over the last few years, but I don't know if I know anything about that specific program."

Figure 2-3. Trade Partner Awareness of Heating Efficiency Product



Of the trade partner interviewees who were aware of the product, they reported to have learned about it primarily through word-of-mouth or through interactions with Xcel Energy staff. The two trade partners who learned of the product through word-of-mouth heard about the rebates through peers in the industry. The three trade partners who heard about the product through Xcel Energy staff had an existing relationship with a staff member who sent emails or spoke in person to them about the product. Of the five interviewees who reported to be aware of the Heating Efficiency Product, only one reported to be knowledgeable in the product, with an

understanding of both promoting the product and the process of applying for and submitting rebate applications.

MOTIVATION TO PARTICIPATE IN THE HEATING EFFICIENCY PRODUCT

The evaluation team asked participating customers and trade partners about what motivated them to apply for a rebate through the Heating Efficiency Product and what motivated them to pursue high-efficiency equipment. Participating customers reported to be motivated to participate in the product because it reduced their costs for the equipment, and they were motivated to install high-efficiency equipment because of the energy and cost savings. Trade partners confirmed the customer findings. This sub-section first presents results from the participating customer interviews and then presents results from the trade partner interviews.

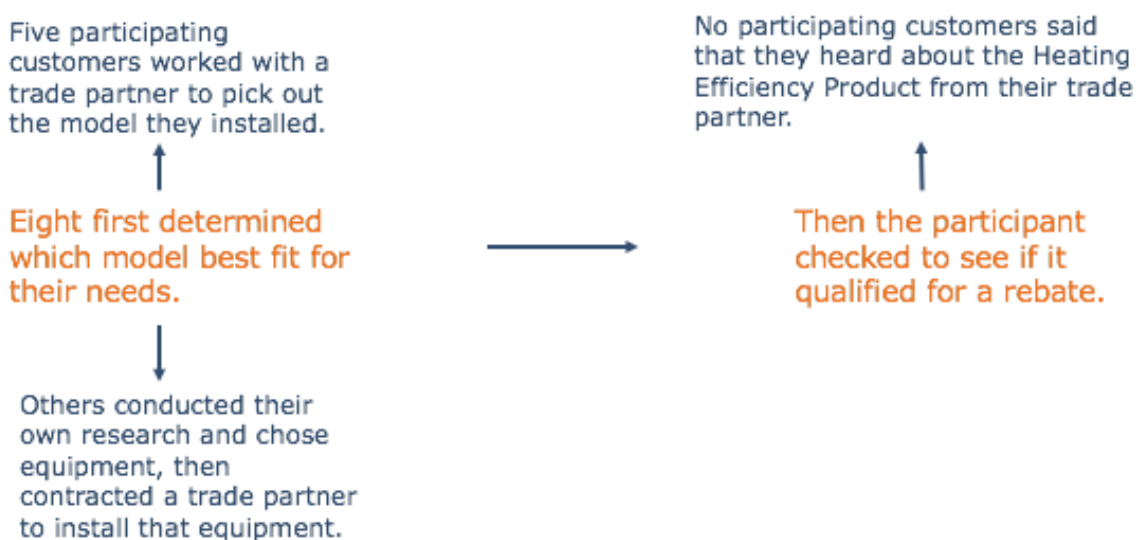
PARTICIPATING CUSTOMERS

Participating customer interviewees reported to be primarily motivated to submit applications for rebates because of the lowered upfront costs of equipment. Nine out of ten respondents stated that they were motivated to participate because the rebate helped reduce the sticker price of the equipment. One participating customer noted that by lowering his upfront costs, he was “better able to steward his finances,” while another stated that “any bit of help to defer costs is useful.”

None of the participating customers reported that they were primarily motivated to purchase the high-efficiency equipment because of the rebates. Six were motivated by the potential for energy savings and three were motivated by the desire to upgrade to better equipment. One felt that all the options for heating equipment on the market were energy efficient, so that any model she opted for would have also been energy efficient.

As shown in Figure 2-4, participating customer interviewees primarily decided to purchase high-efficiency equipment before researching Xcel Energy rebates. Eight stated that they first determined which equipment model best fit their needs, based on factors such as efficiency needs, sizing and cost. Five consulted with a trade partner, who helped the customer pick out the model they installed. Others conducted their own research and chose equipment, then contracted a trade partner to install that equipment, requiring that the trade partner bid the project based on their preferred equipment.

Figure 2-4. Participating Customer Rebate Decision-Making Pathway



After choosing and purchasing their equipment, participating customers stated that they next checked to see if their heating equipment qualified for a rebate, rather than using the list of rebate-eligible equipment as a guide. However, one customer stated that they chose the brand of water heater they wanted based on Consumer Reports, and then went back and forth with their account manager to pick a unit that would qualify for an Xcel Energy rebate. No participating customers said that they heard about the Heating Efficiency Product from the trade partner that installed their equipment.

One participating customer who described this process of choosing heating equipment said, "When I bought this new hot water heater, I called customer service at Xcel. They directed me to the rebate program and gave me the appropriate information."

While participating customers reported that they looked for rebates after choosing a model, their general knowledge of Xcel Energy rebate programs may have influenced their purchasing decisions. Xcel Energy could have influenced these decisions due to prior participation in the programs, awareness of Xcel Energy rebate programs in general, and/or increased equipment availability in the market. It is also important to note that the interviewees represent a small sample of all participating customers, and that these findings are not a statistically significant representation of participation experiences.

TRADE PARTNERS

While trade partners expressed low awareness of the Heating Efficiency Product, they reported using Xcel Energy rebates, in general, as a sales tool. Six trade partners stated that they discuss Xcel Energy rebates broadly during their sales process, typically when the salesperson or installer is out at the job site. Two trade

partners said they bring up rebate opportunities with customers “right off the bat” during their initial discussions of equipment and installation options. Two said they waited until they had assessed all the needs of their customer and began considering solutions, ostensibly preferring to wait until they knew whether a rebate-eligible unit would make sense given the client’s requirements. One trade partner waited a step longer, preferring to wait until they not only understood the needs of the client and their equipment requirements, but also until they knew that the project would meet the Heating Efficiency Product eligibility requirements. One other waited until he knew the sale would go through, because he felt there was a lot of legwork required in determining whether a unit was rebate eligible, which he did not want to invest in until he knew he would make the sale. One trade partner noted that he “discusses rebates very early on. We’re involved in initial system selection. Any advantages the rebate program can give us might help drive that sale.”

BARRIERS TO PARTICIPATION

The evaluation team also asked participating customers and trade partners about challenges they experienced when deciding to purchase the high-efficiency equipment and barriers to applying for the rebate. Participating customers reported two major challenges: (1) finding qualified trade partners that could install the equipment and (2) understanding what equipment was eligible for the rebate. Trade partners discussed similar challenges citing that they did not feel comfortable recommending high-efficiency equipment and also reporting unfamiliarity with which heating equipment was eligible for a rebate. These two primary barriers are explored in more detail within the remainder of this sub-section. Results from participating customer and trade partner interviewees are synthesized within each sub-section to understand the barrier from both perspectives.

DIFFICULTY FINDING QUALIFIED TRADE PARTNERS

Five interviewees reported that finding a qualified contractor to install their equipment was challenging. These customers described several issues contributing to this barrier, including finding installers who were knowledgeable about the requirements for installation. One interviewee described searching for “years” for a contractor who knew how to install efficient boilers, and particularly, how to pipe efficient boilers properly. This customer said he inquired with several of the larger firms and was surprised to find that there were no installers with the required knowledge. He also felt that when a contractor was knowledgeable of the requirements for the boiler installation, they often worked exclusively on large buildings, like large offices, and would not work on smaller buildings.

Participating customers also felt it was difficult to find installers who completed high-quality work. One interviewee reported finding their contractor from the Xcel Energy list of qualified trade partners, however they did not feel the contractor performed well since they received two failed inspections and reported the installation was poor (giving the contractor a “D” grade). Others found that, because there was so much work available for contractors at the moment, it was

difficult to find an installer in the time range the customer required. Lastly, other participating customers expressed that contractors charge a lot of money for installation—so much so that one participating customer decided he would rather train his own employees on the installation than pay the high prices the installers charge: “We switched to doing all our installation in-house because the contractor was charging us too much. I’d rather train my guys, work on our own schedule, and save the money.”

Trade partners expressed some unfamiliarity with energy-efficient boilers, and sometimes hesitated to recommend it to customers, providing evidence to support customer claims that there are few trade partners familiar and willing to install the equipment. Six trade partners described challenges to selling and installing high-efficiency boilers. They provided several reasons for these challenges, including the upfront costs of boilers, which were high—and therefore sometimes off-putting to customers—compared to their standard or mid-efficiency counterpart. Other trade partners noted that installation for high-efficiency boilers was overly complicated: “For a lot of the energy efficient water heaters... they require a flue and an intake and may run out of PVC. I’d just as soon set the new water heater in place and walk away. Instead of having to run the flue and intake. It’s a pain in the rear end.”

Three trade partners reported that high-efficiency boilers installed in the field was not as efficient as equipment installed for factory testing, making them less comfortable recommending the equipment to customers: “It might be that efficient when you’re testing in the lab, but as the guy with the wrench who’s installing it, I don’t see that energy magic of it. Lowering their standards would get more old equipment replaced sooner.” One of these trade partners stated that he would prefer recommending a mid-efficiency unit, because a customer typically will not operate the equipment in the manner needed to achieve the highest efficiency levels, meaning the overall energy efficiency of their system and facility will not be optimized. For these reasons, a mid-efficiency unit may achieve similar levels of efficiency as a high efficiency unit.

DIFFICULTY UNDERSTANDING PRODUCT ELIGIBILITY REQUIREMENTS

Participating customers and trade partners both reported it was difficult to understand the requirements for qualified equipment. Five participating customers experienced challenges determining whether their equipment qualified for a rebate:

- Two disagreed with the requirements themselves, feeling the requirements were either arbitrary or ineffective. One of these disagreed with the use of AHRI to determine efficiency and the other felt that specifications for pipe wrap was arbitrary. He felt that other models that achieved the same energy savings should qualify for Heating Efficiency Product rebates.
- One felt the process to determine what equipment qualified took so long, that they hired a consultant to go through the process for them: “It’s hard to know what’s eligible, what are the requirements. What are the hoops to jump through? Quite honestly, I don’t have time to do it all, that’s why I hired someone else to do it for me.”

- Another participating customer, who was applying for rebates for a project completed in an HOA clubhouse, said that it took a long time to determine whether the project fell under the commercial or residential prescriptive program, or whether they would need to apply for rebates as a custom project.
- A fifth participating customer noted that, while it was not difficult to decide to participate in the product, the challenges came afterwards when trying to determine whether their project qualified for a rebate. This customer noted that there were lots of issues with miscommunications with staff regarding eligibility.

Trade partners also reported difficulties understanding the requirements for qualified equipment, noting that the process could be time-consuming.

- Two trade partners described challenges determining whether the equipment they installed for customers qualified for a rebate and said that this challenge prevented their further participation in the product.
- One felt there was a lot of initial legwork involved in determining eligibility and that they did not want to suggest to customers that their equipment installation could qualify for a rebate until they knew with certainty. This trade partner stated, "Xcel Energy has a lot of requirements for the rebate, and most of the time it is a huge rebate. We make sure they check all the boxes before we even talk about it."
- The other trade partner who noted that determining whether a project was qualified for the Heating Efficiency Product was difficult said that he first wanted to be sure know he would make the sale before putting in the effort to determine whether the equipment qualifies for the product rebates: "There's a lot more legwork early in sales process to determine if the project qualifies. We need to be sure we'll get the sale."

EXPERIENCES WITH THE APPLICATION PROCESS

Once interviewees decided to pursue a rebate, participating customers and trade partners reported that the rebate application process proceeded relatively smoothly. They both also reported that participating customers primarily completed and submitted the application forms, however at times trade partners completed the equipment specification section. Both participating customers and trade partners had limited experience with the online application. Trade partners frequently reported that the online form wasn't practical to use because it required one person to complete the form all at once, which was not feasible, since they typically pass the application form around to different people at their company to complete. Lastly, while participating customers and trade partners reported satisfaction with their interactions with Xcel Energy staff, the evaluation team interviewed two customers that reported receiving miscommunications about the product. This sub-section describes these findings in more detail and includes synthesized participating customer and trade partner results relating to their:

-
- Experiences completing the application form
 - Use of the online application versus paper form
 - Interactions with Xcel Energy staff during the application process

EXPERIENCE COMPLETING THE APPLICATION FORM

Participating customers we interviewed felt the application process was clear-cut and straightforward and often completed their applications entirely or partially themselves. Eight out of ten participating customers reported completing all or part of the rebate application forms themselves, two of whom said they completed the forms with the help of a trade partner or contractor, and six who completed the forms entirely by themselves. Few participating customers noted any issues with the forms, primarily describing them as “straightforward” and “self-explanatory,” but two did mention that the amount of paperwork felt time-consuming. Both of these customers represented larger facilities with multiple rebate-eligible units. One noted a seemingly long amount of time to complete the forms stating that “doing the forms took... about 12-15 hours between the two of us.... completing forms and gathering the information.” However, this customer still did not report dissatisfaction with the time.

The majority of interviewed trade partners confirmed that participating customers often completed their applications entirely or partially themselves. Five trade partners reported that customers complete all or part of application. Two of these said that the customer completed the entire application by themselves, and three said they helped the customer complete a portion of the forms. Trade partners varied in the amount of support they described giving to their customer. Two said they filled out sections of the application for their customers while another stated that they “lead [the customer] to the starting process of the website, show them the forms, give them model, serial numbers and specifications of the equipment” and then the customer submits their own forms.

Three trade partners, however, stated that they complete applications entirely for their customers: “We take over the paperwork process and just send the customer a filled-out application to sign. We do it because we know it’s easy, the customer wants as little to do with it as possible.” One of these trade partners noted that they offer application completion as a service and stipulate in their contract with the customer whether they will complete the rebate forms or whether the customer will.

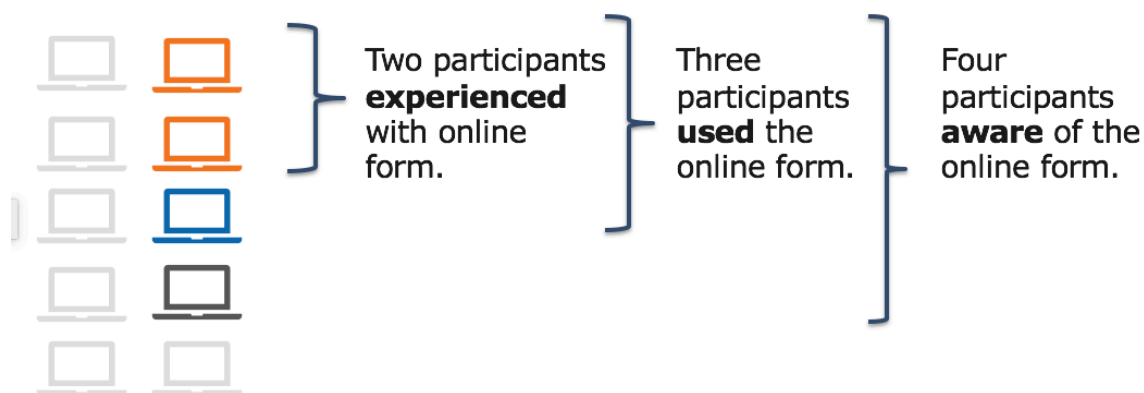
Trade partners often reported there were multiple people at their company involved in the application process. In two cases, salespeople initiated the process by selling the equipment, while administrators or office managers completed the rebate forms. Another trade partner explained different employees filled out the section they were most comfortable with and then passed the form on.

USE OF THE ONLINE APPLICATION VERSUS PAPER FORM

Participating customers primarily printed out the application or filled out the PDF online, then emailed or faxed the forms back to Xcel Energy. Three noted that they printed the forms in order to pass them among different people for completion. For example, participating customers explained they sent the application to their contractor to fill-in sections with specifics about equipment, and then completed and signed the forms. Two noted that this process was facilitated by the paper or PDF form, rather than the online application. However, one participating customer said that because he was so familiar with the forms now, and the information they asked for, he found it easier to use the online forms.

As shown in Figure 2-5, four out of ten participating customers said they were familiar with the online forms, but only three had ever used the online application to apply for a rebate. Two of these indicated they were experienced with the online application, and both represented large facilities with multiple rebate-eligible units. Both of these customers described using the online tool because of its ease. One said it was possible for him to use the online tool because all his information was in one place now, whereas before he needed to carry the paper forms around. The other felt that, by completing his application forms online, he could more easily ensure that he included the correct information thereby making the approval process simpler for his account manager and speeding up his rebate turnaround time: "We've shifted almost entirely to the online form, that way we know we're submitting everything we should be. I think it's more foolproof than just printing and filling it out."

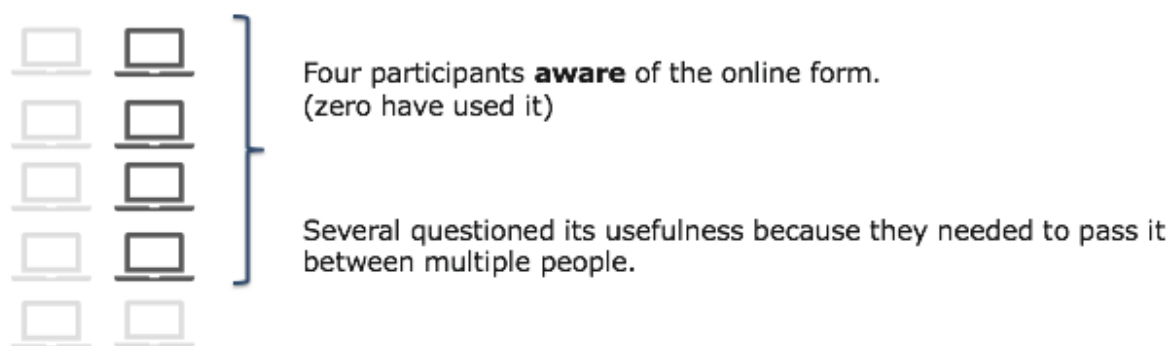
Figure 2-5. Participating Customer Use of Online Application



As shown in Figure 2-6, all interviewed trade partners reported printing out the application or filling in the PDF version of the application forms. No trade partners said that they had used the online application, although four were aware of its existence. Trade partners stated that they needed to print out the forms in order to pass it to different people for completion, and for this reason, two trade partners questioned the usefulness of the online forms: "I imagine it's not difficult, but I just

don't see why it's better. Our PDF forms are filled out in piecemeal and get passed around over time. The online application wouldn't work for that. We would have to have all our ducks in a row. With the PDF you can look at and make sure you have all the information." One trade partner said that he did not feel motivated to switch to the online forms when the paper forms were still available.

Figure 2-6. Trade Partner Use of Online Form



INTERACTIONS WITH XCEL ENERGY STAFF DURING THE APPLICATION PROCESS

Participating customers viewed Xcel Energy staff as a valuable resource in the application process. Eight participating customers described working with Xcel Energy staff during the process of applying for their rebate. Seven of these said that they themselves were the main point of contact with Xcel Energy. Participating customers felt that the high-touch service offered to them by Xcel Energy staff was a strength of the product and should continue in future iterations of the product. Participating customers also highlighted the helpfulness of Xcel Energy staff proactively reaching out to customers throughout the rebate process: "It was really by the grace of God... our Account Manager went out of her way to get a hold of us and tell us about the program. We didn't know about it before, she called us up." Participating customers also felt that they knew who to contact, should issues or questions arise during the application process. One participating customer acknowledged that product staff "hand-held" him through the process of applying for and submitting his rebate.

Though product staff were frequently used as a resource during the application process and described as a strength of the product by participating customers, three reported issues with the Xcel Energy staff. Two described scenarios where staff miscommunicated or provided incorrect information. While one of these customers was satisfied with his service after the miscommunication was sorted out with his account manager, the other felt that product staff intentionally misled him: "That program is so screwed up, and the people who are working in the program, their sole purpose appears to be to make your rebate not go through...Highly unprofessional." A third participating customer felt that it sometimes took longer than anticipated to receive responses to questions from his Account Manager and

noted that he keeps a spreadsheet of rebates he has submitted, because he sometimes needs to follow up on them. Once, a large rebate he had submitted “fell through the cracks,” and he had to sort it out with his Account Manager.

EXPERIENCES WITH THE REBATE PROCESS

The evaluation team also asked participating customers and trade partners about their experiences with the rebate process in terms of the time it took to receive rebates and whether the customer or trade partner was deemed as the rebate recipient. Interviewees generally did not express any concerns relating to the rebate process. This subsection presents these findings in more detail.

REBATE TURNAROUND TIME

Participating customers generally did not express concerns with rebate processing or with the time it took to process the rebate. Three mentioned that they felt the rebate processing time could be shorter, and one customer with multiple facilities said he sometimes needed to follow-up or chase down rebates with his account manager. The range of reported rebate processing times varied from 10 to 90 days. The most common processing time described was 30 to 45 days.

REBATE RECIPIENTS

Trade partners reported that they sometimes allocate Xcel Energy rebates to be sent to the customers and sometimes to themselves. Two trade partners stated they offer both options, depending on customer preference and the “risk” involved. One trade partner felt that boiler rebates were less risky – they reduce the rebate price off the invoice at their “own personal risk” because they feel confident that the project will qualify for the Heating Efficiency Product and the rebate will be approved. Two trade partners stated that most of the time the rebates were sent to the trade partner’s company. One of these noted that they gave their customers an instant discount directly off the invoice for all prescriptive rebates. Two trade partners stated that rebates were sent directly to their customer. The additional two trade partners were not knowledgeable about the rebate process and did not know where the rebates were sent.

2.6 OPPORTUNITIES TO IMPROVE THE APPLICATION PROCESS

In addition to understanding participating customer and trade partner experiences, Xcel Energy staff wanted to collect feedback from interviewees on process improvement opportunities. While interviewees expressed satisfaction with the product, they also provided several suggestions for strategies to improve it. This section presents suggestions from participating customers on how to improve the application process. Trade partners did not provide recommendations for the application process, therefore this section presents recommendations from participating customer interviewees only. The evaluation team assessed the

feasibility and applicability of these recommendations when presenting the final recommendations included in Chapter 3.

- **Conduct more proactive outreach during the decision-making period.** First, interviewees noted that the sales team from Xcel Energy should continue to be proactive with outreach and identify and capture opportunities to engage customers earlier in their decision-making process. Interviewees reported primarily choosing their heating equipment and then researching to determine whether it qualified for an Xcel Energy rebate. Three participating customers also noted that they wished Xcel Energy had been part of their decision-making process by helping them determine which rebate-eligible units best fit their needs or making suggestions for eligible equipment when the unit they are considering does not qualify. Engaging with participating customers through proactive outreach during the decision-making process and focusing marketing efforts on those customers who are conducting their own research could address the difficulty experienced in determining the eligibility of their installed equipment through the Heating Efficiency Product.
- **Continue and build staff capacity to “hand-hold” customers through the application process.** The majority of interviewees were in contact with staff at Xcel Energy at some point during their application process and acknowledged that they found the assistance with their forms to be a strength of the product. Interviewees felt that Xcel Energy should consider creating greater capacity for the staff to provide high-touch service and handholding throughout the application process.
- **Ensure the sales team is familiar with product requirements.** Finally, two participating customers experienced miscommunications with product staff that delayed projects and lengthened rebate turnaround time. Xcel Energy has an opportunity to improve the application experience for participating customers by ensuring that the sales team is fully apprised of qualifications and eligibility requirements for the product to avoid miscommunications.
- **Include project detail on rebate check.** One interviewee reported that they submit many rebate applications and sometimes have trouble tracking which rebates he received because the rebate checks did not clearly state to which project it was associated. This interviewee suggested including the facility address on the rebate check to assist them with record keeping.

2.7 OPPORTUNITIES FOR GREATER PRODUCT ENGAGEMENT

Xcel Energy also wanted to understand how to better engage with trade partners and customers to encourage greater product participation. Since trade partners reported limited knowledge about the Heating Efficiency Product specifically, they expressed a desire for greater engagement from Xcel Energy. Participating customers reported that this would be helpful as it was difficult to find knowledgeable trade partners to install the equipment. The evaluation team also asked peer utility program managers how they engage with customers and trade

partners, results of which are included within this section as well. The remainder of this section first presents findings from participating customers and trade partners. It then presents findings from peer utility program managers separately since they offer a perspective outside of the Xcel Energy territory. Note that these recommendations are from the interviewees and not necessarily reflect the final recommendations from the evaluation team. The evaluation team assessed the feasibility and applicability of these recommendations when presenting the final recommendations included in Chapter 3.

PARTICIPATING CUSTOMERS AND TRADE PARTNERS

Both participating customers and trade partners provided ideas on how Xcel Energy could support greater engagement opportunities. Their ideas are provided in the below bullets:

- **Increase marketing and outreach efforts directed to trade partners.** Trade partners reported that they would benefit from greater awareness and understanding of the product, and they provided several different opportunities for doing so:
 - Provide informational materials that contractors can use while selling rebate-eligible equipment.
 - Increase email communication and outreach, with one trade partner suggesting that a monthly email newsletter would be useful.
 - Update email distribution lists because some trade partners noted that they did not think email communication about the product was going to the correct person at the company. The evaluation team also found that many email addresses were out of date when recruiting for interviews.
 - Include flyers and other information on the Heating Efficiency Product as an insert in commercial customers' and trade partners' energy bills.
- **Identify qualifying equipment in easy locations for customers.** One trade partner suggested putting an "Xcel stamp of approval" on equipment that is eligible for the Heating Efficiency Product rebate. This trade partner reported that a stamp of approval could encourage more customers to ask for that equipment and consequently encourage more trade partners to use it in projects.⁹
- **Provide greater support to connect customers with trade partners.** Lastly, both trade partners and participating customers felt that Xcel Energy could facilitate connections between customers and qualified trade partners, alleviating customer struggles with finding qualified trade partners and bringing more leads to qualified trade partners.¹⁰ Participating customers

⁹ Xcel Energy staff reported that it would not be feasible to add a "stamp of approval" to qualifying equipment because it cannot support certain brands nor do the distributors' products all stay within the Xcel Energy territory.

¹⁰ Xcel Energy currently lists participating trade partners in the Heating Efficiency Product. It is not able to recommend specific trade partners to customers.

asked for increased promotion of qualified installers on Xcel Energy's Heating Efficiency Product website and additional information on the promoted trade partners. One specifically suggested providing space on the website for customers to rate their experience with listed trade partners or include the trade partner's certifications or specialties.

PEER PROGRAMS

The evaluation team also asked peer utility program managers about how they engage trade partners and customers in their programs. Related to this, the evaluation team also asked peers about whether they target certain customer types for heating equipment and how program engagement has been affected by low gas prices. With regards to trade partner engagement, peer utilities reported conducting the following activities:

- Hosting and/or attending events
- Cold calling trade partners
- Emailing regularly about the program and any program updates
- Targeting social media ads (particular success with LinkedIn)
- Co-branding marketing materials
- Reimbursing trade partners for training events
- Engaging distributors to keep equipment in stock and up-to-date

In terms of customer engagement, all of the peer utility interviewees reported relying on direct installation initiatives and door-to-door canvassing to engage customers in their heating programs. The bullets below present specific actions the peer utilities take to drive greater engagement with heating measures while at customer sites:

- Perform direct install of small measures (e.g., faucet aerators), which can help provide energy savings and offset costs of the direct outreach efforts.
- Leave behind materials with relevant case studies specific to heating equipment.
- Leave behind application forms so customers do not need to find the form online.

In addition to direct installations and door-to-door canvassing, the peer utilities identified the following additional actions to engage customers:

- Rely on account managers to identify renovations early in the design phase in order to influence customers to install high-efficiency equipment.¹¹

¹¹ Because account managed customers are typically gas transport customers, they would not qualify for the Heating Efficiency Product. The BSC team could perform this activity but, by design, they typically do not have ongoing proactive relationships with customers that would enable them to identify opportunities with renovations.

- Distribute case studies to customers to educate them on how high-efficiency heating equipment could save energy and money.

When asked, peer interviewees reported that they target awareness efforts with a variety of customers. Three peers reported that they target large customers, such as casinos, hotels, hospitals, government offices, and universities. These types of customers would not likely be applicable to Xcel Energy, however, since these customers tend to only receive gas transport service and are not eligible to participate in the product. One of the peers, however, also mentioned focusing on local franchises, since decisions can still influence many facilities, but they tend to have more flexibility over purchasing decisions compared to national chains. One utility targeted customer types that were more likely to have underperforming measures. For example, if they want to sell more kitchen equipment rebates, they will focus on commercial kitchens.

The evaluation team also asked peer utility interviewees about how they encourage participation in light of low gas prices. Three peer utilities provided a response to this question, but no common solution emerged:

- One interviewee reported to increase outreach efforts to drive greater participation in their product.
- One interviewee cut their marketing budget in order to increase their budget for incentives, reporting that 50% of their budget was now focused on incentives.
- One interviewee reported they chose to switch to using the Utility Cost Test (UCT) to account for costs differently.

2.8 OPPORTUNITIES FOR NEW MEASURES

Xcel Energy also wanted to determine if interviewees had suggestions for additional measures that could be included in the product's measure mix. The evaluation team directed this question primarily to trade partners and peer utility program managers since they, more so than customers, have an understanding of the variety of heating equipment measures that exist. This section first presents participating customer and trade partner findings and then presents peer program utility findings.

PARTICIPATING CUSTOMERS AND TRADE PARTNERS

One participating customer provided a suggestion for new opportunities. This customer suggested allowing equipment that achieves R value equivalencies to rebate-eligible equipment into the prescriptive program. The customer was frustrated that he could not apply for a prescriptive rebate when he used pipe insulation that was made of a different (and in his opinion, better) material than the pipe insulation prescribed by the Heating Efficiency Product, even though it achieved the same R value. Allowing participants to be flexible in terms of specific units or materials that offer equivalent savings, but retain the ease of the

prescriptive program, could increase the number of projects completed within the Heating Efficiency Product.

A few trade partners mentioned lowering standards for boilers to include more mid-efficiency options or increase the size of rebates for mid-efficiency options. Trade partners felt that mid-efficiency equipment achieved similar energy savings as high-efficiency equipment, because high-efficiency equipment typically is not optimally operated in customer facilities and therefore does not achieve the specified energy savings. According to trade partners, Xcel Energy could encourage old equipment to be replaced more quickly if they expanded incentives for mid-efficiency options.

Trade partners also provided several suggestions for emerging technologies, some of which may not be eligible for gas energy savings right now but could be considered for the Heating Efficiency product in the future. The technologies identified by trade partners included:

- Ductless systems
- Mini splits
- Combi units (whereby a combination of domestic hot water with space heating and/or air conditioning are in a single unit)

PEER PROGRAMS

Additionally, the evaluation team compared the measures offered through the Heating Efficiency Product with measures offered at peer utilities. The following bullets present measures offered at the peer utilities that Xcel Energy currently does not offer within the Heating Efficiency product:

- Heaters:
 - Radiant heating
- Water Heater
 - Direct-contact gas water heater; $\geq 90\%$ thermal efficiency
 - Proper sizing support
- Alternative space/water heaters:
 - Combined space/water heater $>90\%$
 - Solar-assisted water heater (pool)
 - Modulating gas infrared heating system
- Controls
 - Programmable thermostats
 - Smart thermostats
 - Demand control ventilation
 - Energy recovery ventilator

- Insulation
 - Attic, roof, wall insulation
 - Air sealing
- Other
 - Driveway snow melt system
 - Multiple measure bonus
 - Energy kits with pre-rinse spray valves, aerators, showerheads, weather strips
 - Commercial clothes washer
 - Commercial kitchen equipment
 - Gas dryer moisture sensor
 - Modulating gas dryer

3. CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the evaluation team's key findings and associated recommendations regarding the Xcel Energy Heating Efficiency Product in Colorado. All recommendations are based on key findings from our evaluation research and are designed to reflect the context of future product years, acknowledging expected changes in the market and planned product changes.

Overall, the evaluation team found that participating customers and trade partners were satisfied with their experiences of the Heating Efficiency Product; however, trade partners expressed limited awareness about the specifics of the product, which limited their ability to market the product to their customers. As a result, there were few trade partners that conducted more than one Heating Efficiency Product project in 2018. Additionally, none of the participating customers learned about the rebate offering from their trade partner, despite the fact that Xcel Energy has been relying on their trade partners to market the product to customers.

- **Key Finding 1: Trade partners' familiarity with the product was low.** While trade partners were familiar with Xcel Energy rebate programs generally, they were less aware of the Heating Efficiency Product specifically. Trade partners described knowledge of the Xcel Energy program generally and reported to bring rebates up with customers during the sales process; however, none of the participating customer interviewees reported to learn about the Heating Efficiency Product rebates from their contractors. Trade partners reported unfamiliarity with the specific rebates offered through the Heating Efficiency Product and frequently were unable to recall projects they completed through the commercial Heating Efficiency Product. Additionally, 26% of trade partner emails in our sample were out of date, and five declined interviews because they did not think they had participated in the product.
- **Recommendation 1a: Increase marketing and direct engagement with trade partners who participated more than once.** Reach out directly, via telephone or email, to trade partners that have participated more than once in the Heating Efficiency Product. This will provide Xcel Energy with two benefits. First, these trade partners are good candidates for becoming even more active if they have more familiarity with the product, and highly active trade partners are valuable because Xcel Energy can rely on them to market the product to their customers and submit flawless applications that are easy to process. Second, a pool of active trade partners can provide Xcel Energy with a resource to better understand trade partner

needs and questions. Xcel Energy could then rely on their feedback to better support outreach to other trade partners.¹²

- **Recommendation 1b: Assign staff to maintain and track trade partner email information to ensure email addresses are up-to-date (for both administrative and field staff).** Currently, Xcel Energy requests trade partners to contact Xcel Energy if their contact information changes. However, the evaluation team found that trade partner emails were out of date and one trade partner mentioned that Xcel Energy emails were being sent to the wrong person at their organization. Most trade partners noted that email was their preferred method of communication with Xcel Energy. Maintaining up-to-date contact lists will support Xcel Energy efforts to better engage trade partners as part of their overall customer engagement strategy.
- **Key Finding 2: Some trade partners reported reluctance to recommend rebate-eligible equipment and participating customers reported difficulties finding available trade partners familiar with high efficiency equipment.** Trade partners were sometimes reluctant to recommend rebate-eligible equipment because of installation challenges and concerns about performance on efficiency. Additionally, participating customers reported challenges finding trade partners willing and knowledgeable enough to install high-efficiency equipment.
 - **Recommendation 2: Increase trade partner engagement by supporting trainings to increase product and equipment awareness.** Supporting trade partners trainings could increase the number of trade partners competent to install high-efficiency equipment and provide another avenue to market the product to trade partners. Support could come in the form of providing food or space for training events. Xcel Energy could also offer to speak at training events about the product's offerings. Supporting training events can help mitigate the barrier customer's faced in finding contractors qualified to install high-efficiency equipment.
- **Key Finding 3: Interviewees rated Xcel Energy staff highly, but some interviewees received mixed messages about the rebates from staff.** Both trade partners and participating customers reported satisfaction with Heating Efficiency Product staff. Interviewees described leaning on staff for support throughout the rebate process, indicating their importance to maintaining high levels of customer and trade partner satisfaction. Despite

¹² As a result of receiving preliminary findings about low product awareness of among trade partners, Xcel Energy conducted a Heating Efficiency Advisory Meeting with Heating Efficiency trade partners in September 2019. This meeting included an overview of the product including a review of eligible equipment and rebate values. These attendees could serve to become a group of highly active trade partners.

satisfaction, two of the ten participating customer interviewees reported receiving miscommunication about the rebates and/or rebate process from the sales team.

- **Recommendation 3: To prevent miscommunications, increase training for Xcel Energy sales staff, focusing on those who support smaller commercial and industrial customers, on product requirements and eligibility.** Ensure that sales staff are equipped to remain a resource for customers and are fully knowledgeable about aspects of the product in order to avoid miscommunications that could lower confidence in and satisfaction with staff.
- **Key Finding 4: Forecasting energy savings for the product was challenging.** The product manager attributed this challenge to limited documentation of early phases of projects in Salesforce. At the same time, the sales team reported a number of challenges documenting projects that are still in their early stages in Salesforce. Because this information was not consistently documented in Salesforce, both the product manager and sales staff needed to invest time, that could be better spent promoting the product and supporting customers, on internal forecasting processes.
 - Recommendation 4: Improve data management practices relating to documentation of early project stages in Salesforce.** To address the challenge that product managers face in forecasting energy savings, Xcel Energy staff need to identify protocols and practices that can help streamline early documentation of projects to facilitate energy savings forecasting. This recommendation would need to be implemented at the portfolio-level as it impacts data entry practices for all types of energy efficiency projects. As a first step to improving practices, the sales and product teams could meet to develop an agreement on how to address the challenges identified through this research, as well as others challenges that might exist. Below is a list of current needs:
 - Determine means to adjust goal structure so staff do not feel that entering early stage data on projects is too risky.
 - Identify (or clarify) criteria for when projects and energy savings should be entered into Salesforce.
 - Determine a method for how to make data entry/data management less of a burden on sales team.
 - Provide guidance for typical energy savings for common projects.
- **Key Finding 5: Participating customers and trade partners continued to use the paper application forms despite availability of the online form.** While trade partners and customers reported that the application process was straightforward, uptake on the online form was low. Participating customers reported primarily using paper forms and trade

partners solely used paper forms. Trade partners reported that the online form was not effective because it did not allow for their staff to pass the form around to each other. Both participating customers and trade partners noted that customers frequently completed all or part of their applications forms.

- **Recommendation 5a: Provide training to customers and trade partners on how to use the online application form.** Increased training will provide customers and trade partners with a greater understanding of how to complete the forms, and therefore could encourage more customers and trade partners to use the online form. This recommendation also would need to be implemented at the portfolio-level as it supports use of the online application form across all products. Training could include:
 - An online link to a video demonstration.
 - In-person demonstrations of the online application at events and/or through one-on-one conversations with trade partners and customers who participate frequently.
 - **Recommendation 5b: Examine opportunities to improve the online application process to make it easier to complete and manage applications, including the ability to complete applications overtime.** The ability to complete applications overtime such as assigning certain sections to certain people and/or including a save button, would allow users to complete applications on their own time and rely on their typical business practices and/or expertise. This would allow more customers and trade partners to use the online form. Similar to Recommendation 5a, this recommendation would need to be implemented at the portfolio-level.
- **Key Finding 6: Trade partners sometimes hesitated to recommend high-efficiency boilers.** Three trade partners reported that the highest efficiency boiler models did not generate enough energy savings to justify the additional cost of the equipment. Trade partners reported that that mid-efficiency boilers achieved similar energy savings as high-efficiency models because of how customers operate the equipment at their facilities. They reported that the high-efficiency ratings were only achievable in controlled settings. Two trade partners felt that incentives on mid-efficiency equipment could be increased to incentivize replacing old equipment more quickly.
 - **Recommendation 6: Adjust the incentive structure to encourage more customers to install mid-level efficiency boilers, instead of lower-level efficiency boilers.** To encourage more installations of the mid-efficiency units, and face concerns that the high-efficiency boilers do not generate sufficient energy savings to justify the higher costs to customers, the evaluation team recommends examining the rebate structure to allocate more of the rebate budget on the 85% efficient boilers. By adjusting the incentive structure to support more customers who would not install an efficient

boiler to install the 85% efficient boiler, Xcel Energy could expect greater participation.

- **Key Finding 7: Participating customers reported investigating rebate opportunities after they decided to purchase a particular equipment type.** Half of the participating customer interviewees worked with trade partners to identify which model to install although, according to these interviewees, none of these trade partners mentioned the rebate during these conversations. The other half of participating customer interviewees conducted their own research to determine which model to select. Xcel Energy may have still influenced the customer's purchase due to its general marketing campaigns and/or prior participation in other Xcel Energy products, but the degree of its influence is unknown and not a research objective for this evaluation. This could present future risk in net energy savings.
 - **Recommendation 7: Increase opportunities to influence customers when they are deciding which equipment model to purchase.** Ideas could include:
 - **Increase trade partner awareness of product.** Since half of participating customers relied on their trade partner to help choose the equipment, increasing trade partner awareness of the product would help give trade partners the information they need to help inform their customers about the rebate-eligible models during their sales process. To do this, see Recommendations 1a, 1b, and 2a.
 - **Increase the web presence of Xcel Energy rebates on search engines.** Since the other half of the participating customer interviewees reported conducting research on their own about which model to select, Xcel Energy should consider opportunities to increase its web presence on search engines, including paying for online advertising when customers search for heating equipment models. While the Heating Efficiency Product does not have marketing budget to spend on online advertising, this recommendation is something Xcel Energy could consider performing at the portfolio level.
- **Key Finding 8: Peer programs offer a wide variety of gas savings measures.** The Xcel Energy Heating Efficiency Product in Colorado currently consists of a limited number of measures compared to peer programs. While some measures offered by peers may not be applicable to heating specifically or may not be cost-effective within the Xcel Energy territory, they can be assessed for inclusion.
 - **Recommendation 8: Assess feasibility of including additional measures offered by the product.** Examine the measures offered by peer utilities to determine if any measures could be applicable to the Heating Efficiency Product (see Section 2.8 for list of measures).

Increasing the number of measures rebated can support greater participation and opportunities to meet gas savings goals.

XCEL ENERGY

2019 Colorado Heating Efficiency Process Evaluation

APPENDICES

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APPENDIX A: HEATING EFFICIENCY EVALUATION PLAN

A.1 INTRODUCTION

To support the process and impact evaluations of the 2018 Xcel Energy efficiency products, the EMI Consulting evaluation team conducted a process evaluation of the Xcel Energy CO Heating Efficiency Product. This appendix provides a plan for the 2019 Xcel Energy CO Heating Efficiency Product evaluation, based on staff feedback during the evaluation kick-off meetings and staff interview findings.

This evaluation plan includes the following sections:

- Product Overview
- Evaluation Overview
- Data Collection Activities and Sampling Plans

A.2 PRODUCT OVERVIEW

The CO Heating Efficiency Product offers prescriptive rebates to Xcel Energy commercial customers who install qualifying equipment in existing or new buildings. Rebates are offered to encourage customers to purchase energy efficient equipment by lowering the upfront premium costs associated with this equipment. In 2018, the Heating Efficiency Product claimed 25,082 kWh and 28,763 Dth in energy savings from prescriptive rebates provided in Colorado (Table A-1).

Table A-1. CO Heating Efficiency SaviFigure **Error! No text of specified style in document.**-1: Near-Participant Populationnngs by Measure, 2018

Measure	Units		kWh		Therms	
	Quantity	% of total	Quantity	% of total	Quantity	% of total
Boiler Tune-up ^a	61	21%			17,132	6%
New Hot Water Boiler >=92%	61	21%			75,567	26%
High Efficiency Water Heaters	48	16%			153,865	53%
Pipe Insulation 105-200 Degree	39	13%			5,991	2%
94% Efficient Furnaces ^a	24	8%			4,790	2%
Unit Heaters - Non-Condensing	17	6%			9,442	3%
New Hot Water Boiler >= 85%	14	5%			7,784	3%
Unit Heaters – Infrared	8	3%	8,277	33%	4,828	2%
92% Efficient Furnaces ^a	7	2%			950	0%
EC Fan Motor on New Commercial Furnace ^a	6	2%	16,805	67%	0	0%
Other	11	4%			7284	3%
TOTAL	296	100%	25,082	100%	287,633	100%

^a Xcel Energy does not plan to pursue these measures starting in July 2019.

Product staff already made the following modification in July 2019:

- Removal of boiler tune-ups, ECM retrofit motors, and gas furnaces from the list of measures.

Product staff are also considering one possible modification for future cycles:

- Depending on feasibility of implementation, product staff may consider adding rebates for food service equipment to influence sales of this equipment and capture savings through the product.

The CO Heating Efficiency Product relies heavily on an active trade partner network, as well as active involvement from account managers in selling heating upgrades to their customers. While Xcel Energy does not actively endorse or promote individual

trade partners, this group plays an integral part in advancing the product. Internally, Xcel Energy relies on trade managers to maintain these relationships.

A.3 EVALUATION OVERVIEW

The 2019 evaluation only consisted of a process evaluation. The process evaluation focused on customer and market actor experiences with the product. This section presents the objectives of the process evaluation. It is followed by a more detailed description of the evaluation activities.

The study was intended to be used by Xcel Energy to inform its development of future DSM Plans. The overall objective of this process evaluation was to provide Xcel Energy product staff with recommendations about how to improve the effectiveness and efficiency of the Heating Efficiency Product.

PROCESS EVALUATION

The evaluation team discussed process evaluation priorities during the kickoff meeting¹ and staff interviews.² During those conversations, several themes emerged, primarily around opportunities to increase customer participation in the product.

- **Limited participation in the product:** Staff reported limited participation due to a few factors: (1) Large customers typically do not qualify for the product because they are typically gas transport customers, (2) small customers face significant first cost barriers to replacing gas equipment, (3) low gas costs also limit customer interest in pursuing gas efficiency projects. As a result, identifying how best to overcome these barriers was an evaluation priority.
- **Trade partner training:** Staff reported they saw opportunities to increase trade partner engagement in this product. Greater engagement could help trade partners develop a deeper understanding of application needs, increase knowledge of the type of data required to process application forms, and position trade partners to better market the product to their customers. Trade partner research could help identify opportunities for greater trade partner engagement – both in terms of methods of engagement and type of training desired by trade partners.
- **Trade partner implementation experiences:** Trade partners appear to play an important role in implementing this product. Research with trade partners could add valuable insights to this evaluation. Topics could include: qualitatively understanding market penetration, barriers to customer participation, experiences with the paper and online application forms, and experiences with the sales process.

¹ Held via telephone on February 26, 2019.

² Staff interviews took place in March and April 2019.

These topics were mapped to the following **objectives of the process evaluation**:

- Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.
- Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify opportunities to improve the application process.
- Identify methods to better engage trade partners in the product.
- Analyze customer and trade partner experiences and satisfaction with the product.

A.4 DATA COLLECTION ACTIVITIES AND SAMPLING PLANS

To meet the above objectives, we conducted a variety of data collection activities. These are listed in Table A-2 and explored more in this section. At the time of writing the evaluation plan, the evaluation team had already conducted interviews with Xcel Energy staff members (Task Reference A in Table A-2) to help understand specific needs for this evaluation.

Table A-2. Heating Efficiency Research Summary

Task Ref.	Research Task	Sample Size	Enhanced Scope?	Research Objective(s)
A	Staff Interviews	6 groups (8 staff)		Inform evaluation plan, document internal implementation experiences
B	Participant Interviews	10 ^a		Customer experience, satisfaction, motivations for participating, barriers to participation
C	Trade Partner Interviews	15 ^b	✓	Trade partner experiences and satisfaction, barriers to participation, feedback on customer experiences and barriers, feedback on application processes, feedback on engagement opportunities, potential for product expansion into new markets
D	Peer Utility Benchmarking	4-6 utilities		Best practices, potential for product expansion into new markets

^a The evaluation team initially planned to conduct 70 telephone surveys with participants, however due to a priority to conduct trade partner interviews, the evaluation team and Xcel Energy decided to conduct 10 telephone interviews instead.

^b The evaluation team planned to conduct 15 interviews, however due to recruitment challenges, it conducted 10 interviews.

A – STAFF INTERVIEWS

In March and April 2019, the evaluation team conducted six interviews with eight Xcel Energy staff to inform this evaluation plan, discuss program goals, and review program processes, challenges, and successes. Interviewees included the current product manager, a former product manager, engineers, an account manager, business solutions center representatives and a trade manager. These interviews were conducted over the telephone and took between 30-60 minutes to complete. These meetings, combined with the kickoff meeting, allowed the evaluation team to create a focused evaluation plan with defined data collection activities. Staff interview findings will be synthesized with other research findings and documented in the evaluation report. Staff interview results will be included in an appendix to the evaluation report.

B – PARTICIPANT INTERVIEWS (ADJUSTED SCOPE)

The evaluation team targeted conducting 10 participant telephone interviews and focused the interviews on collecting customer experiences with the product.

- **Awareness and Motivations:** The evaluation team assessed how customers learned about the Heating Efficiency Product and determined motivations for participation.
- **Barriers to Participation:** The evaluation team asked customers if they faced any barriers in deciding to participate in the product.
- **Product Experience/Satisfaction:** The evaluation team discussed customers' experiences with and satisfaction with the product, including experiences with the application process, the equipment, and their contractors.

The evaluation team prioritized speaking to customers that installed measures that Xcel Energy continued to promote after July 2019. Because the population of 2018 participants was relatively low, the evaluation team developed the sample frame using the following populations:

- Q1 2019 participants
- Q1-Q4 2018 participants (the evaluation team did not need to contact Q1-Q3 participants)
- Q3-Q4 2017 participants (these participants were not contacted)

Table A-3 shows the number of participants that installed equipment Q3 2017- Q1 2019 by those who used a trade partner and those who did not. Measures that were not continued after July 2019 were removed from the table. The evaluation team stratified the sample by whether a contractor was involved in the project (as reported in Salesforce). To the extent possible given the small population size, the evaluation team also stratified based on measure type to collect feedback on participation experiences with a variety of measure types. We also prioritized calling

2018 and 2019 respondents as these were likely to have better recall of their participation, and their experiences best reflect the current program.

Participant survey findings were synthesized with other research findings and documented in the evaluation report. Results specific to the participant survey are contained in Appendix C to the evaluation report.

Table A-3. Total Number of CO Heating Efficiency Participants Q3 2017 – Q1 2019 (That Installed Measures Which Xcel Energy Will Continue to Rebate in 2019)

Year	w/ Trade Partner	w/o Trade Partner	Total
July – December 2017	55	26	81
January – December 2018	97	47	144
January – March 2019	16	14	30
Total	168	87	255

The original scope for this evaluation was to conduct 70 telephone surveys with participants and no trade partner interviews. However, because Xcel Energy staff reported that Heating Efficiency Product projects were largely driven by trade partner recommendations, Xcel Energy agreed to adjust the scope to conduct trade partner interviews. In order to do so within the existing budget, the evaluation team and Xcel Energy decided to conduct a small number of interviews with both trade partners and participants.

C – TRADE PARTNER INTERVIEWS: ENHANCED SCOPE

While a typical Xcel Energy process evaluation did not include trade partner interviews, the evaluation team recommended it speak with trade partners for two primary reasons:

- Staff reported that trade partners play the primary role of marketing the product to customers; therefore understanding trade partner experiences in marketing can help identify barriers to participation and opportunities to better engage trade partners in the product.
- Staff reported that trade partners often complete the application for their customers so they will be better-positioned to report on experiences with the application process. These interviews can also answer staff questions around uptake of the online application form.

The evaluation team proposed to interview 15 trade partners as part of this effort, as shown in Table A-4. To the extent possible given the small population size, the evaluation team stratified the population based on measure type to try to collect feedback on a variety of equipment experiences.

Table A-4. Heating Efficiency Trade Partner Target Interviews, by Interview Strata

Trade Partner Strata	Population ^a	Target Interviews ^b
More active: at least 5 jobs	4	4
Less active: less than 5 jobs	70	8
Distributors	TBD	3
Total	74	15

^a For purposes of the evaluation, the evaluation team only included trade partners associated with installing measures that Xcel Energy will continue pursuing after July 2019.

^b The evaluation team will attempt a census of all trade partners that have completed at least 5 jobs; in the event that we are not able to complete interviews with all four of these trade partners, the remaining target interviews will be allotted to the group of trade partners who has completed less than 5 jobs.

The evaluation team coordinated trade partner efforts with the product manager and the trade manager to determine opportunities to follow-up with trade partners on trade partner findings in its next trade partner advisory board meeting, which took place in Fall 2019. We synthesized trade partner findings with other research findings and documented them in the evaluation report. Results specific to the trade partner interviews are included in Appendix C to the evaluation report.

D – PEER UTILITY BENCHMARKING

The objective of the peer utility benchmarking task was to understand how peer utilities are approaching key issues related to implementing heating efficiency programs. The Heating Efficiency Product Manager and the evaluation team confirmed the utilities to include in the benchmarking task after the benchmarking interview guide was finalized.³

Starting with seven peer utilities, the evaluation team recruited staff in key management roles related to the product at peer utilities with a target sample size of six interviews. The evaluation team drew from additional lessons learned from the Xcel Energy 2017 MN Heating Efficiency benchmarking study as needed. The benchmarking interviews emphasized the following research objectives:

- Identify successful methods of promoting heating efficiency equipment and rebates to customers.
- Determine successes and experiences in specific market segments.

The evaluation team developed a peer utility interview guide customized to the desired benchmarking components, which was provided to Xcel Energy for approval

³ When finalizing the task plan, the evaluation team also determined if there were additional peer utilities that operate in states that allow for transport gas.

prior to beginning data collection. Finally, the evaluation team summarized the results of the benchmarking analysis in a summary within the final evaluation report.

APPENDIX B: DATA COLLECTION DOCUMENTS

B.1 HEATING EFFICIENCY STAFF INTERVIEW GUIDE

INTRODUCTION

This guide was used to interview staff associated with Xcel Energy's DSM programs as part of the 2019 evaluation of the Xcel Energy DSM programs. The interviews were semi-structured, with these questions serving as a basic guide for experienced staff during one-on-one phone interviews.⁴ As a guide for semi-structured interviews, these questions were not necessarily be asked verbatim, but served as a roadmap during the conversation.

STAFF INTERVIEW RESEARCH QUESTIONS OR OBJECTIVES

- Assess the extent to which the program design supports program objectives and customer service/satisfaction objectives.
- Assess the degree to which program resources are sufficient to conduct program activities with fidelity to the implementation plan
- Collect staff feedback on implementation successes and challenges
- Identify themes and issues for possible revisions to the evaluation plan

INTERVIEW

SECTION A: INTRODUCTION

[If staff was not included in kick-off meetings:] First we would like to give you some background about who we are and why we want to talk with you today. EMI Consulting is an independent consulting firm that works with electric and gas utilities to review and improve program operations and delivery. Xcel Energy contracted with us to perform an evaluation of their portfolio of energy efficiency programs and we're currently in the process of conducting interviews with product managers and key staff involved in designing and delivering the portfolio to improve our understanding of Xcel Energy's DSM programs and its' influence on customers. We also want to understand what will be useful for you as Xcel Energy program staff because of our research. We want to incorporate your priorities into our study so that the results are as useful as possible.

[ALL] Thank you for taking the time to speak with me today. My objective for this meeting today is to gain a deeper understanding of this program, what Xcel hopes to achieve through implementing this program how it operates, and a bit about

⁴ Some interviews may be conducted jointly. This would most likely occur if someone's role recently changed or if more than one person performs the role.

your experiences with the Heating Efficiency product. We are interested in asking you some questions about the Heating Efficiency product so we can benefit from your knowledge and experience to improve our understanding of the program. I have a set of questions that should take approximately 45 - 60 minutes, depending upon your experiences and involvement with the program. All the information provided is anonymous, we will be weaving it together with information gleaned from other interviews.

Before I begin, is it alright if I record the conversation for note taking purposes?
[RECORD IF ALLOWED]

A1. [If needed] First, can you take a moment and explain your role and scope of responsibilities with respect to the Heating Efficiency product? [IF ALREADY KNOWN, REWORD TO CONFIRM]

Probes:

- Approximately how long have you held this position?
- What previous positions did you hold?
- Whom do you report to in the overall org structure?
- Do you have any direct reports?

A2. [IF NOT KNOWN] What role do third party implementers play in program implementation?

SECTION B: PROGRAM GOALS

I'd like to be sure I understand the goals of this program, both overall and specific.

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

B1. Can you take me through the key goals for the Heating Efficiency product?

B1a. Can you describe any savings goals? Do you have specific goals for individual components of the program (e.g., upstream vs. downstream, by measure type)?

B1b. Any other, non-energy goals?

B1b1. Any more immediate goals? For example, participation goals, customer engagement goals, improving customer satisfaction? Changing customer awareness of or attitudes about energy efficiency measures?

B1b2. Any longer-term goals? For example, reducing greenhouse gas emissions? Altering market behaviors?

B2. What are “indicators of success”?

B2a. What are interim indicators that the program is or is not meeting its objectives or goals?

B3. Have any of these goals changed in the last few years?

B3a. What was the rationale for changing them?

B3b. In your opinion, how have these changes affected the program’s operations or its outcomes?

B4. What influences do you think this program has had on the market?

SECTION C: PROGRAM ACTIVITIES

I would like to make sure I have a solid understanding of how this program operates. If there is any formal documentation that you can refer me to as we walk through these next questions, I’d appreciate getting copies.

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

C1. What are the different components of the program?

C1a. What, if any, incentives and/or tools does the program use to achieve its goals?

C1b. What activities do program and implementer staff engage in to achieve program goals?

- Marketing?
- Financial assistance?
- Applications?
- Technical assistance?
- Education?
- Contractor/Trade Partner support?
- Drop ship/direct install?

C1c. What tools are used to reach out to customers and/or market partners?

C1d. What are the participation steps from a customer perspective?

C2. Are these program activities modeled on another program or set of programs?

C3. Have any of these incentives changed in the last few years? What was the rationale for changing them?

C4. Have any of these activities changed in the last few years?

C4a. What was the rationale for changing them?

C4b. In your opinion, how have these changes affected the program's operations or its outcomes?

C4c. Have you measured how these changes impacted savings or participation?

SECTION D: RESOURCES

D1. What resources do you rely on to implement the program?

D1a. Program, implementer, sales staff?

D1b. Management and program direction?

D1c. IT tools and data tracking tools?

D1d. Other resources?

D2. Are these resources sufficient to implement the program as designed?

D2a. [IF NO] How could the program design/implementation change to be more efficient? What additional resources would help you implement the program as designed?

D3. Have any of these program resources changed in the last few years?

D3a. What was the rationale for changing them?

SECTION E: PROGRAM TRACKING AND REPORTING

I understand that you are using Salesforce as your primary program tracking tool. I'd like to understand how program activities are tracked to understand what data might be available to us in our evaluation.

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

E1. What kind of documentation is available for the program? Implementation plans? Program manuals? Process maps?

E2. What kinds of data are collected for the Heating Efficiency product?

APPENDICES

E3. Are there any data that you would like to collect for the Heating Efficiency product, but haven't been able to?

E4. Are there any data/documentation not tracked in Salesforce that might be helpful for the evaluation?

E5. As part of our evaluation, we will likely want to speak to "near-participants," customers/distributors that were eligible to participate in the program, showed some interest in program participation, but didn't participate for whatever reason. Would these customers all be tracked in Salesforce?

E6. [For Engineering Staff] What kind of baseline does the program use to estimate energy savings? [PROBE FOR CODE VS. COMMON PRACTICE]

SECTION F: STRENGTHS AND CHALLENGES

Next, I'd like to get your feedback on how the program is running.
[TAILOR BASED ON WHAT IS ALREADY KNOWN]

F1. In your opinion, what are the strengths of the Heating Efficiency product as it is currently being run?

F1a. What would you say is working well in terms of program design or implementation?

F2. What are the most significant challenges for this program at this point?

F3. What feedback, if any, do you receive from customers and/or market partners on the program? (PROBE FOR CUSTOMER ENGAGEMENT/ CUSTOMER SATISFACTION)

F4. What do you believe are the biggest barriers to getting customers and/or market partners to participate in this program?

F5. Are there any specific opportunities for improvement in the design or implementation of the program? Please describe.

F6. What would you like to see changed in how the program is designed or run, if anything?

F6a. Do you think there are any roadblocks preventing these changes from happening?

SECTION G: CLOSING

G1. Based on the kickoff meeting, we are planning to prioritize <RESEARCH PRIORITIES>, does align with your understanding? Do you have anything you

would like to add to these priorities, remove from this set of priorities, or change about these priorities?

G2. Do you have particular questions that you would like to see answered by the evaluation? Why are these questions important?

G3. Do you have any other comments, concerns or suggestions about the program that we didn't discuss that you would like to make sure I know about?

Thank you very much for taking the time in assisting us with this evaluation. If I come up with any additional questions that come from this interview, do you mind if I send you an email or give you a quick call? I will also follow up with you shortly to identify peer utilities and performance indicators to kick-off the benchmarking task.

B.2 PARTICIPATING CUSTOMER INTERVIEW GUIDE

INTRODUCTION

To support the process and impact evaluation of the 2019 Xcel Energy energy efficiency products, the EMI Consulting evaluation team conducted telephone interviews with 10 participants of the Heating Efficiency Product. We prioritized speaking with 2019 participants that did not have an assigned account manager since non-managed customers received more limited support through the product processes. We aimed to speak to five participants who self-installed equipment and five participants that reported to rely on a trade partner to help with the installation process. Since additional sample was needed to complete ten interviews, the evaluation team drew from Q4 2018 participants. This guide presented the questions to be covered in the in-depth interviews with participants.

This guide was designed to facilitate interviews with key decision makers within companies who participated in Xcel Energy's Heating Efficiency Product. The interviews assessed the decision-making process, identified barriers to participation, assessed customer satisfaction, and identified opportunities to improve the product.

The remainder of the introduction provides the research questions which this guide was designed to address and fielding instructions for the interviewers. The following list of objectives are also presented in **Error! Reference source not found.**, alongside the interview questions intended to address them.

PARTICIPANT RESEARCH QUESTIONS

Overall research questions that the evaluation team sought to answer are presented in the bullets below. These questions are mapped to the overall evaluation objectives and specific interview questions, as shown in **Error! Reference source not found.**

- How do customers learn about the Heating Efficiency Product?

- What motivates customers to participate in the Heating Efficiency Product?
- Do customers face any barriers to participation in the Heating Efficiency Product?
- How do participating customers experience Heating Efficiency Product processes?
- How satisfied are participating customers with the Heating Efficiency Product?
- What opportunities exist to improve product processes and offerings?

Table B-1. Mapping of Participant Interview Questions to Research Questions & Evaluation Objectives

Evaluation Objective	Participant Interview Research Question	Interview Question Number(s)
Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.	Do customers face any barriers to participation in the Heating Efficiency Product? What opportunities exist to improve product processes and offerings?	B4 B1a-c, B2a, D2-D3, E1
Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.	(Primarily addressed in trade partner interviews and utility benchmarking interviews)	E2
Identify opportunities to improve the application process.	How do participating customers experience Heating Efficiency Product processes? (specific to application process)	C1-C5, C8a-c, C8f, E1
Identify methods to better engage trade partners in the product.	NA (addressed in trade partner interviews and utility benchmarking interviews)	NA
Analyze customer and trade partner experiences and satisfaction with the product.	How do customers learn about the Heating Efficiency Product? What motivates customers to participate in the Heating Efficiency Product? How do participating customers experience Heating Efficiency Product processes? (other than application processes since that is addressed above) How satisfied are participating customers with the Heating Efficiency Product?	B1, B2 B3 C6, C7, C8d, C8e, C8f, C9-C11 D1, D2

FIELDING INSTRUCTIONS

The following fielding guidelines were used for participant recruiting and interviews:

- Attempt to reach each participant six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.

- Experienced interviewers should attempt to convert "soft" refusals [e.g., "I'm not interested", immediate hang-ups] at least once.
- Commercial customer calling hours are 9 AM to 5 PM UTC.
- Record interviews

RECRUITING DIALOG/MESSAGE SCRIPT

WHEN LEAVING A VOICE MESSAGE: Hi, this is [NAME] from EMI Consulting, calling on behalf of Xcel Energy. We're contacting customers who participated in the Xcel Energy Heating Efficiency Product to understand how Xcel Energy can improve the product. We're currently scheduling 30-minute interviews with customers like you. We value your time and expertise, and are happy to be able to give you a \$25 Tango gift card for your participation. Would you please let me know when the best time is for your interview? We'd really like to have your perspective included in this research. Again, my name is [NAME] and my phone number is [PHONE]. I look forward to hearing from you!

INTERVIEW GUIDE

SECTION A: SCREENER/BACKGROUND INFORMATION

Thank you for agreeing to talk with me today. EMI Consulting is an independent third-party contractor hired by Xcel Energy to evaluate their Heating Efficiency Product. I expect this conversation to take about thirty minutes. To help me capture your responses accurately, is it okay if I record this call? The recording will be used for my note-taking purposes only. To protect your anonymity in this study, information that you provide will only be used for an evaluation of the Heating Efficiency Product, and we will not share your information outside of this effort. We will only report information in aggregate, so your specific responses will not be tied to your name nor will they be reported on their own.

Do you have any questions before I start? First, I want to take 5 minutes to better understand your role and set the stage for the rest of the questions.

A1. I see COMPANY NAME participated in the Xcel Energy Heating Efficiency Product. Are you the person at your firm who is most familiar with your company's involvement in the Xcel Energy Heating Efficiency Product?

IF NO: ASK TO SPEAK TO PERSON MOST FAMILIAR AND END CALL

A2. Can you briefly describe your company's work?

A3. What is your title or role at your company?

A4. Does your organization have multiple facilities?

PROBE: How many and where are they located? How many of these locations have participated in an Xcel Energy efficiency product?

SECTION B: AWARENESS, MOTIVATIONS, BARRIERS

B1. How did you first hear about the Xcel Energy Heating Efficiency Product?

PROBE: Was that before or after you had decided to purchase the high efficiency version of the [equipment]?

B1a. What are other ways that you would like to hear about Xcel Energy efficiency product opportunities?

B1b. What is your most preferred method for hearing about opportunities?

B1c. What is your least preferred method for hearing about opportunities?

B2. When you first heard about Xcel Energy's Heating Efficiency product, was there any information that was particularly useful in helping you decide whether or not to participate?

PROBE: incentive levels, materials, application process

B2a. What additional information would have been useful to help you determine whether or not to participate in the product?

B3. What was the primary motivation for your company to...

B3a. ...install the high efficiency model of the (equipment) your company purchased?

B3b. ...participate in the Xcel Energy Heating Efficiency product?

PROBE FOR ANY ADDITIONAL MOTIVATORS

B4. Did your company face any challenges in deciding to...

B4a. ...install the high efficiency model of the (equipment) your company purchased?

B4b. ...participate in the Xcel Energy Heating Efficiency product?

PROBE FOR ANY ADDITIONAL CHALLENGES

SECTION C: APPLICATION AND PRODUCT IMPLEMENTATION

- C1.** Did you complete any or all of the rebate form?
- C2. IF PARTICIPANT COMPLETED ALL OF FORM.** Did you need to seek any clarifications on the rebate form prior to submitting the final form to Xcel Energy?
- [**IF YES**, what about the form needed clarifying and to whom did you direct your questions?]
- C3. IF PARTICIPANT COMPLETED PART OF FORM.** What part of the form did you complete?
- C3a.** Who completed the other sections of the rebate form (trade partner, Xcel Energy staff, someone else at company)?
- C3b.** Did you need to seek any clarifications on the rebate form prior to submitting the final form to Xcel Energy?
- [**IF YES**, what about the form needed clarifying and to whom did you direct your questions?]
- C3c.** Who submitted the form to Xcel Energy (yourself, trade partner, someone else at company)?
- C4. IF PARTICIPANT COMPLETED ALL OR PART OF FORM.** Did you submit the rebate form via the online tool or via email/paper?
- C4a.** Why did you prefer to use this method? [**PROBE** for awareness of online tool]
- C5. IF PARTICIPANT COMPLETED NONE OF FORM (or signature part only).** Who completed the form (trade partner, Xcel Energy staff, someone else at company)?
- C5a.** Was that a service [they] offered or did you ask them to complete the form for you?
- C5b. [IF CUSTOMER ASKED FOR SUPPORT]** Why did you ask [them] to complete the form? (PROBE for any confusion with the rebate form)
- C6.** Did you or your contractor contact Xcel Energy staff at anytime about the project?
- C6a. [IF YES]** Were you the primary contact between your facility and the Xcel Energy staff?

C6b. [If C6a=Yes] How did you communicate with the Xcel Energy representative [or your account manager]?

Probe: email, phone, in-person, mail, web chat [**IF** more than 1 method, clarify: Which of these methods was most effective for communicating with product staff and/or your account manager?]

C6c. What is your preferred method for reaching Xcel Energy staff [or your account manager]?

C6d. [IF C6a=NO] Who was the primary contact for the product staff or your account manager? **PROBE:** Installer/Contractor, someone else at their firm

C7. IF A CONTRACTOR WAS INVOLVED IN PROJECT. How did you decide to work with your contractor?

PROBE: Were you referred to the contractor by anyone? Did your contractor discuss other models or technologies with you? Which alternatives did you consider? How did you decide on the equipment you ended up installing? Did you discuss models with varying efficiency ratings? Did your contractor discuss operating and maintenance techniques with you?

C8. How difficult or easy would you say it was to complete the following tasks associated with the Xcel Energy Heating Efficiency Product on a scale from 1 to 5 where 1 is extremely difficult and 5 is extremely easy?

C8a. Complete rebate forms

C8b. Understand rebate process

C8c. Determine equipment / models that are eligible

C8d. Get in touch with an Xcel Energy representative

C8e. Find a contractor install equipment

C8f. Ask for any C8 responses LESS THAN 4: Please provide a sentence or two describing how it was not easy.

What can Xcel do to make it easier?

C9. About how long did it take to receive your rebate after completing and submitting the necessary paperwork?

C10. From the time work started to project completion, did the project take less or more time than you expected to complete?

C11. Is your installed [heating] equipment performing as expected?

[PROBE] Have you examined whether your [heating] equipment is providing the energy savings you expected?

SECTION D: SATISFACTION

- D1.** Using a scale from 1 to 5, where 1 is extremely dissatisfied and 5 is extremely satisfied, please rate your satisfaction with the following items:
- D1a.** Your **overall satisfaction** with the Heating Efficiency Product?
 - D1b.** The Xcel Energy Heating Efficiency Product **staff**? Didn't really
 - D1c.** The **equipment** you received a rebate for as part of the Heating Efficiency Product?
 - D1d.** The size of the Heating Efficiency Product **rebate**?
 - D1e.** The amount of **time** it took to receive your **rebate**?
 - D1f.** The amount of **time** it took to go through the **whole process**?
- D2.** IF D1a-f <5: What could Xcel Energy do to increase your satisfaction with the Heating Efficiency Product?
- D3.** Is there anything the Xcel Energy Heating Efficiency Product is doing especially well and should keep doing?

SECTION E: CLOSING

- E1.** Do you have any recommendations for improving the Heating Efficiency Product?
- E2.** Are there any other heating projects that you're thinking about and what types of equipment are you considering?
- E3.** Is there anything we didn't cover that you'd like to mention or discuss about your experiences as a participant in the Xcel Energy Heating Efficiency Product?
- E4.** We are going to send you a \$25 Tango gift card as a small thank you for your time. Can I verify your email address so we can get it to the right place?

Thank you. Those are all the questions I have today.

THANK AND TERMINATE

B.3 TRADE PARTNER INTERVIEW GUIDES

INTRODUCTION

To support the process and impact evaluation of the 2018 Xcel Energy efficiency programs, members of the EMI Consulting evaluation team conducted in-depth telephone interviews with Trade Partners. These guides present the questions to be covered during the in-depth interviews for the Xcel Energy Colorado Heating Efficiency program. This document includes two guides – one for contractors and one for distributors. The evaluation team planned to interview 15 trade partners as part of this effort, as shown in **Error! Reference source not found.**, including contractors that were more active, contractors that were less active, and heating equipment distributors. To the extent possible given the small population size, the evaluation team stratified the population based on measure type to try to collect feedback on a variety of equipment experiences.

Table B-2. Heating Efficiency Trade Partner Target Interviews, by Interview Strata

Trade Partner Strata	Population ^a	Target Interviews
More active: at least 5 jobs	4	4 ^b
Less active: less than 5 jobs	70	8
Distributors	TBD	3
Total	74	15

^a For purposes of the evaluation, the evaluation team only included trade partners associated with installing measures that Xcel Energy will continue pursuing after July 2019.

^b The evaluation team attempted a census of all trade partners that have completed at least 5 jobs; because it could not reach all of these interviewees, any remaining interviews were allotted to the group of trade partners who has completed less than 5 jobs.

The remainder of the introduction provides the research questions which these guides were designed to address and fielding instructions for the interviewees.

EVALUATION OBJECTIVES

The objectives for the CO Heating Efficiency product evaluation were to:

- Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.
- Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify opportunities to improve the application process.
- Identify methods to better engage trade partners in the product.
- Analyze customer and trade partner experiences and satisfaction with the product.

The trade partner interviews did not address every evaluation objective. For reference, the following table provides the evaluation efforts used for each objective.

Evaluation Objective	Research Activity
Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.	Participant surveys and trade partner interviews
Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.	Trade partner interviews and peer utility interviews
Identify opportunities to improve the application process.	Participant surveys and trade partner interviews
Identify methods to better engage trade partners in the product.	Trade partner interviews and peer utility interviews
Analyze customer and trade partner experiences and satisfaction with the product.	Participant surveys and trade partner interviews

Specific research questions which the trade partner interview guides were designed to address are the following:

- What motivated the contractor's decision to participate in the product?
- Why did participating contractors decide not to complete additional projects?
- Are there actions Xcel Energy can take to increase participation in the product?
- How do trade partners sell projects? What is the role of the program in helping them sell projects, and what motivates their customers to participate?
- What is the trade partners' experience with the Heating Efficiency application?
- What is the trade partners' familiarity/experiences with the online application specifically? What are opportunities to expand use of the online application?
- How satisfied are trade partners with their experience with the program? What do trade partners like about the program, and what do they think could be improved?
- Are there emerging markets and/or technologies that the program should include?

The following table presents the link between each evaluation objective, research question, and interview question.

Evaluation Objective	Research Question	Interview Question Number(s)
Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.	What motivated the contractor's decision to participate in the product? Why did participating contractors decide not to complete additional projects? Are there actions Xcel Energy can take to increase participation in the product? How do trade partners sell projects? What is the role of the program in helping them sell projects, and what motivates their customers to participate?	B1.3, C2.2, D2 D1, D3, D4, D5 D4.1, D5.1, H2, M2 C1, C2, D2, J1-J3, K2
Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.	Are there emerging markets and/or technologies that the program should include?	G1-G4, L1-L4, J3
Identify opportunities to improve the application process.	What is the trade partners' experience with the Heating Efficiency application? What is the trade partners' familiarity/experiences with the online application specifically? What are opportunities to expand use of the online application?	E2, E4, E5 E3, E4, E5
Identify methods to better engage trade partners in the product.	Are there actions Xcel Energy can take to increase participation in the product?	B1.2, D4.1, D5.1, E3.1, E3.2.c, F5, H2, M2
Analyze customer and trade partner experiences and satisfaction with the product.	How satisfied are trade partners with their experience with the program? What do trade partners like about the program, and what do they think could be improved?	B1, E1, E6, E7, F1-F5, H1-H3, J1, J2, K1, K2, M1-M3

FIELDING INSTRUCTIONS

We attempted to schedule interviews via email if email addresses were available. We supplemented email recruiting efforts with telephone calls. The following fielding guidelines were used for contractor/distributor recruiting and interviews:

- Attempt to reach each trade partner/contractor six times on different days of the week and at different times.
- Leave messages on the first and fourth attempt.
- Experienced interviewers should attempt to convert "soft" refusals [e.g., "I'm not interested", immediate hang-ups] at least once.
- Calling hours are 7 AM to 6 PM MDT.

APPENDICES

- Record interviews
- Definitions: COMPANY NAME = Update COMPANY NAME with Trade Partner's company name

TELEPHONE RECRUITING DIALOG/MESSAGE SCRIPT (ADJUST SLIGHTLY FOR DISTRIBUTORS)

[INTRO:] Hi, this is **NAME** from EMI Consulting, calling on behalf of Xcel Energy. We're contacting professionals that have worked on projects in the Xcel Energy Heating Efficiency Program to learn how Xcel Energy can improve their program. May I please speak with <CONTACT> or the person most familiar with your company's participation in Xcel's Heating Efficiency Program? [NOTE: Less active participants have completed < 5 Heating Efficiency projects since during 2018. If CONTACT is no longer at the company, and/or no staff are familiar with participation in the program, ask to speak to an individual familiar with the types of projects typically completed by their customers.]

[ONCE CONTACT IS ON THE PHONE, REPEAT INTRO AS NEEDED:] EMI Consulting is an independent third-party contractor hired by Xcel Energy to evaluate their Heating Efficiency Program. I'd appreciate the opportunity to schedule a quick half-hour interview with you to discuss your experience. We are offering a \$50 incentive as a thank you for your time.

[MESSAGE SCRIPT:] Please give me a call back to schedule a time to talk. My name is **NAME** and my phone number is **PHONE NUMBER**. If I don't hear back in a few days, I will give you a try back. Thank you! Goodbye.

EMAIL RECRUITING TEXT (ADJUST SLIGHTLY FOR DISTRIBUTORS)

Hello _____,

I work for EMI Consulting, an independent third-party contractor hired by Xcel Energy to evaluate their Heating Efficiency Program. I am contacting professionals that have worked on projects in the Xcel Energy Heating Efficiency Program to learn how Xcel Energy can improve their program. Regardless of whether you've completed many Heating Efficiency projects, just a few, or even none in recent memory – I'd appreciate the opportunity to schedule a quick half-hour interview with you to discuss your experience. We are offering a \$50 incentive as a thank you for your time.

Below I have listed times I am available over the next two weeks. Please let me know if any of these times might work for you. If not, I can schedule the interview for another time that is more convenient for you.

CONTRACTOR INTERVIEW GUIDE

SECTION A: INTRODUCTION/BACKGROUND INFORMATION

Thank you for agreeing to talk with me today. I expect this conversation to take about half an hour. To help me capture your responses accurately, is it okay if I record this call? The recording will be used for my note-taking purposes only. It won't be shared with Xcel Energy.

Do you have any questions before I start?

First, I want to take 5 minutes to better understand your role and set the stage for the rest of the questions.

- A1.** What is your title or role at COMPANY NAME [**PROBE:** Owner, Engineer, Contractor, Field Technician, Project Manager, etc.]
- A2.** What are your primary responsibilities at COMPANY NAME?
- A3.** Can you briefly describe your company's work? [**PROBE FOR SPECIFIC SPECIALTIES/SECTORS.**]

SECTION B: AWARENESS

- B1.** How did you initially learn about the Xcel Energy Heating Efficiency program? (POTENTIAL FOLLOW-UP QUESTIONS)
 - B1a.** Is this your preferred method for hearing about opportunities?
 - B1b.** What are other ways that you like to hear about Xcel Energy Trade Partner opportunities?
 - B1c.** What program information is most useful for you when deciding to recommend the Heating Efficiency program to one of your customers?

[**PROBE:** incentive levels, materials, application process]

SECTION C: TRADE PARTNER MARKETING

- C1.** What sales techniques do you use to attract heating customers? [**PROBE:** brochures, cold calls, ads, door to door]
- C2.** At what point in the project do you talk to your customers about the Heating Efficiency program?
 - C2a.** Who typically initiates discussion of the Heating Efficiency program?
 - C2b.** What aspects of the Heating Efficiency program do you discuss?

[**PROBE:** eligible equipment, rebate levels, application process?]

APPENDICES

SECTION D: MOTIVATIONS/BARRIERS TO INSTALL EE THROUGH XCEL ENERGY

- D1.** What questions or concerns do customers have during initial discussions about rebates/incentives, if any?
- D2.** What do you think motivates customers to participate in the Heating Efficiency program?
- D3.** Do you sell any eligible projects without applying for incentives/rebates?
 - D3a.** What are the reasons why? [**PROBE:** does customers ever decide not to pursue the incentive mid-way through the application process?]
- D4.** Are there (other) challenges related to selling heating equipment in general?
 - D4a.** Is there anything Xcel Energy can do to help resolve these challenges?
[IF YES], would that motivate you to participate more in the Heating Efficiency program?
- D5.** What, if anything, about the program keeps you from participating more?
 - D5a.** What can Xcel Energy do to increase your participation?

SECTION E: PROGRAM EXPERIENCES

- E1.** Have you or someone at your company ever attended/hosted a meeting w/ Xcel Energy about Xcel Energy energy efficiency incentives? [**PROBE:** for whether it was interviewee or someone else and location]
 - E1a.** Have you or someone at your company ever met with Xcel Energy specifically about the Heating Efficiency program?
- E2.** Can you describe how much involvement you typically have with the program? This would include interaction with Xcel Energy staff, filling out program paperwork, providing invoices, or fulfilling other requirements.
 - E2a.** How much do you do versus someone else at your company versus the customer?
 - E2b.** Do you typically have the rebates go directly to your customers or are they sent to your company? (Or does it depend on the customer's request?)
- E3.** Are you aware that Xcel Energy now offers an online rebate application for heating equipment? [**NOTE:** this is an actual web-based application from website, not a printable PDF]

E3a. [IF NO]:

- a. What is the best way for Xcel Energy to inform you of new resources such as this?
- b. Now that you know about it, do you expect to use the online application?
- c. What, if anything, could Xcel Energy do to support you in using the online application?
[**PROBE:** Training- 1:1 vs group training, in-person vs online? Something about the application software?]

E3b. [IF YES]:

- a. Have you ever used the online rebate application for heating equipment?
- b. Please explain your experiences with the online application?
[**PROBE:** How did the experience compare to the paper application? Did you face any challenges?]
- c. IF LIMITED/POOR USE: What, if anything, could Xcel Energy do to support you in using the online application more?
[**PROBE:** Training- 1:1 vs group training, in-person vs online? Fixing something on the application?]

E4. How difficult or easy would you say it was to complete the following tasks associated with the Xcel Energy [PRODUCT NAME] Efficiency Product on a scale from 1 to 5, where 1 is extremely difficult and 5 is extremely easy?

E4a. Determine equipment / models that are eligible

E4b. Complete mailed rebate forms

E4c. Submit mailed rebate forms

E4d. [**IF USED**] Complete online rebate forms

E4e. [**IF USED**] Submit online rebate forms

E4f. Meet product deadlines

E4g. Get in touch with an Xcel Energy representative

E5. **Ask for any E3 responses 3 OR BELOW:** What are the reasons why it wasn't easy?

E6. Have you had any feedback from your customers about their experiences with the Heating Efficiency program that you think Xcel Energy should know?

E7. Have you pursued heating equipment rebates from other utilities outside of the Xcel Energy territory?

[IF YES], How do those experiences compare with your experiences with Xcel Energy?

APPENDICES

SECTION F: SATISFACTION

F1. Using a scale from 1 to 5, where 1 is extremely dissatisfied and 5 is extremely satisfied, please rate your satisfaction with the following items:

F1a. Your **overall satisfaction** with the Product?

F1b. Heating Efficiency Product **staff**?

F1c. The size of the Heating Efficiency **rebates**?

F1d. Your experiences with the rebate **process** for heating equipment?

F1e. (If F1-F4 is 3 or below) What could Xcel Energy do to increase your satisfaction with the Heating Efficiency Product?

[**PROBE:** as needed for specific factor]

SECTION G: EVOLVING MARKET PLACE

G1. What do you see as new/emerging energy efficiency opportunities for Heating Efficiency program customers?

[**PROBE:** for additional equipment types that could be incented]

G2. What do you see as trends in the market place for the Heating Efficiency program?

[**PROBE:** Are any energy efficient equipment types gaining more/less popularity? Are there any recent changes in customer preferences in equipment types?]

G3. Are there particular types of commercial businesses that tend to replace heating equipment more frequently?

G4. Are there particular types of commercial businesses that are in higher need of assistance to motivate them to install higher efficient heating equipment?

SECTION H: CLOSING

H1. What is the Heating Efficiency program doing well that they should keep doing?

H2. Do you have any other recommendations for improving the program that we haven't discussed?

- H3.** Is there anything we didn't cover that you'd like to mention or discuss about your experiences with the Xcel Energy Heating Efficiency program?
- H4.** Thank you. Those are all the questions I have today. We are going to send you a \$50 Tango gift card as a small thank you for your time. Can I collect/verify your email address so we can get it to the right place?

THANK AND TERMINATE

DISTRIBUTOR INTERVIEW GUIDE

SECTION A: INTRODUCTION/BACKGROUND INFORMATION

Thank you for agreeing to talk with me today. I expect this conversation to take about half an hour. To help me capture your responses accurately, is it okay if I record this call? The recording will be used for my note-taking purposes only. It won't be shared with Xcel Energy.

Do you have any questions before I start?

First, I want to take 5 minutes to better understand your role and set the stage for the rest of the questions.

- A1.** What is your title or role at COMPANY NAME [**PROBE:** Owner, Engineer, Contractor, Field Technician, Project Manager, etc.]
- A2.** What are your primary responsibilities at COMPANY NAME?
- A3.** Can you briefly describe your company's work? [**PROBE FOR SPECIFIC SPECIALTIES/SECTORS.**]

SECTION B: DISTRIBUTOR PRACTICES

- B1.** Please describe the sales process you have with contractors? (Do you sell to them on a per job basis or do they stock contractors w/ equipment for truck?)
- B2.** What role do you play in recommending certain equipment types to contractors?
- B2a.** To what extent do you recommend equipment eligible for incentives from Xcel Energy Heating Efficiency program?
- [**PROBE** for differences in equipment types]
- B2b.** What percentage of your heating sales are considered eligible for incentives from the Xcel Energy Heating Efficiency program?

[**PROBE** for differences in equipment types]

SECTION C: PROGRAM INTERACTIONS

- C1.** Can you describe how much involvement you typically have with the program? This would include interaction with Xcel Energy staff, filling out program paperwork, providing invoices, or fulfilling other requirements.
- C2.** To what extent, if any, does input from Xcel Energy influence your buying/stocking practices?

SECTION D: EVOLVING MARKET PLACE

- D1.** What do you see as new/emerging energy efficiency opportunities for Heating Efficiency program customers?

[**PROBE:** for additional equipment types that could be incented]
- D2.** What do you see as trends in the market place for Heating Efficiency program?

[**PROBE:** Are any energy efficient equipment types gaining more/less popularity? Are there any recent changes in customer preferences in equipment types?]
- D3.** Are there particular types of commercial businesses that could benefit from targeted outreach from Xcel Energy?

SECTION E: CLOSING

- E1.** What is the Heating Efficiency program doing well that they should keep doing?
- E2.** What recommendations do you have for improving the program?
- E3.** Is there anything we didn't cover that you'd like to mention or discuss about your experiences with the Xcel Energy Heating Efficiency program?
- E4.** Thank you. Those are all the questions I have today. We are going to send you a \$50 Tango gift card as a small thank you for your time. Can I collect/verify your email address so we can get it to the right place?

[**THANK AND TERMINATE**]

B.4 PEER UTILITY INTERVIEW GUIDE

INTRODUCTION

To support the process and impact evaluation of the 2019 Xcel Energy energy efficiency products, the EMI Consulting evaluation team benchmarked the Xcel Energy products against peer utilities. The objective of the benchmarking was to identify opportunities to improve the Xcel Energy products based on a comparison of peer utility programs' design, delivery, and processes. In addition, benchmarking allowed the evaluation team to understand the performance of the product in context with the performance of other utilities. To conduct the benchmarking, the evaluation team conducted secondary research on the peer utilities identified and perform in-depth interviews with program managers at the peer utilities.

This document presents the in-depth interview guide for the Heating Efficiency Product peer utilities interviews. The evaluation team planned to conduct six peer utility interviews. **Error! Reference source not found.** presents eight utilities from which the evaluation team will recruit for interviews. Target respondents are managers of nonresidential heating energy efficiency programs.

Table B-3. List of Peer Utilities

Utility ^b	Program Name
Utility A	Gas Commerical Rebates
Utility B ^a	Gas Commerical Rebates
Utility C	Commercial Industrial Rebates
Utility D ^a	Space and Water Heating Equipment Rebates
Utility E	Business – HVAC & Water Heating Equipment
Utility F	Commercial HVAC and Water Heating
Utility G	Commercial Natura Gas Heating Program
Utility H ^b	Business EnergySmart Space and Water Heating Rebates
Utility I ^b	Business HVAC & Water Heater Incentives

^a The product manager identified these peers as priority interviewees.

^b The evaluation team plans to interview only one utility from this state. It included both of these utilities for recruiting purposes.

Error! Reference source not found. identifies the interview questions related to each key performance indicator.

Table B-5. Mapping of Interview Questions to Contextual Themes identified the interview questions related to each contextual theme.

APPENDICES

Table B-4. Mapping of Interview Questions to Indicators

Key Performance Indicator	Data Needed	Interview Question
Program energy savings goals	2018 program energy savings goals (Therm) 2018 program's savings (Therm) 2018 total energy efficiency portfolio goal (Therm)	B2, B3, B4
Program budget cost of acquisition (e.g. \$/MWh, \$/Mcf)	2018 program budget 2018 total gross energy savings for each peer program	B5
Customer Participation Levels	Number of incentive applications submitted 2018	B1
Total resource cost test (TRC) values	TRC values	B7

Table B-5. Mapping of Interview Questions to Contextual Themes

Contextual themes	Data Needed	Interview Question
Program description	Overall program objectives, implementation strategies, customer types targeted for participation Program staffing, the length of time of program operation, any recent changes that have been made to the program, and future outlook.	A1, A2, C1
Program processes	Customer processes to enroll and participate in program	A2, C1, C2
Customer engagement practices	Methods used to engage customers	C1
Trade partner engagement practices	Methods to engage trade partners	C2
Measure types and incentives	List of measures and their efficiency levels, incentive levels	A3
Program marketing practices	Methods used to increase program awareness to new and existing customers	C1

RECRUITING INSTRUCTIONS

The evaluation team plan sent advance emails to program managers with available emails. This email contained an explanation of the research, as well as both an Xcel Energy and EMI Consulting contact person the utility can reach out to if they had additional questions or would like to schedule an interview at their convenience.

Potential respondents were recruited by consultants on the evaluation team who conducted interviews and were trained on the purpose and goals of the Heating

Efficiency Product qualitative research. The evaluation team were as flexible as possible in scheduling these interviews, including scheduling early morning or evening interviews when possible to accommodate busy utility schedules. The evaluation team left a voicemail or receptionist message on the first attempt whenever possible, and then used discretion to determine any additional messages left on subsequent attempts. The evaluation team strived to attempt to contact each peer utility a minimum of 4 times before giving up on that particular contact, but depending on each unique situation, the evaluation team needed to attempt some contacts more times to ultimately reach the correct person.

INTERVIEW

INTRODUCTION/RECRUITMENT

INTRO 1 Hello, this is INTERVIEWER NAME, calling from EMI Consulting on behalf of Xcel Energy. Is CONTACT NAME available?

INTRO 2 We are working with Xcel Energy on a benchmarking and best practices study for C&I Heating energy efficiency programs. As part of this study, we are reaching out to leaders of C&I heating efficiency programs to learn about innovative programs and best practices in the field. We would like to include UTILITY in this study, as your heating efficiency program has been identified as an peer program. In your interview, we would talk about your heating efficiency program's design and implementation, as well as its successes and challenges. We would be very happy to share an anonymized version of our report on peer heating efficiency programs with you once we've completed our research.

[IF NEEDED:] We will not be requesting any customer or participant data.

INTRO 3 Can we include your utility in the study?

- a. Yes **[RECORD CONTACT INFORMATION; SETUP INTERVIEW TIME; EMAIL INTERVIEW TOPICS]**
- b. No **[DISCUSS CONCERNS; ANSWER QUESTIONS; ATTEMPT TO CONVERT TO "YES"]**

SECTION A: KPIS/PROGRAM DESIGN

A1. First, we'd like to talk through the basic design and organization of your program. **[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH ON PROGRAM]**

Can you describe your program at a high level?

A1a. What are the program's overall objectives?

A1b. Is your program run by utility staff or a third-party implementer? (ex: Franklin Energy, DNVGL, Clear Result)

- A1c.** How many PROGRAM STAFF OR IMPLEMENTER STAFF members support the program? (*ex: Prog. Manager, Field Rep., engineer, others? %FTE on this program?*)
- A1d.** Have there been any recent changes to the program?
- A1e.** Do you expect the program to change at all in the near future?
- A2.** Can you describe the implementation strategies used by staff or implementers? (*Audits? Direct install?*)
 - A2a.** What is the typical length of a project? (*from initial contact through installation*)
- A3.** Next, I'd like to talk about your program's efficiency incentives.
[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH. CAN ASK QUESTIONS BELOW OR ASK RESPONDENT IF OK TO FOLLOW UP VIA EMAIL]
 - A3a.** What types of measures do you offer? [PROBE: Prescriptive, Custom, Design]
 - A3b.** Can you recommend a web page or other resource where I can find a list of your available measures and their incentive values?

If "NO": What specific measures are offered? What are the incentive levels for each measure?
 - A3c.** Do you see any new measures coming into your program any time soon?

SECTION B: SAVINGS GOALS/COST

Next, I'd like to talk about the participation and energy savings achieved through the program in 2018.

[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH. CAN ASK QUESTIONS BELOW OR ASK RESPONDENT IF OK TO FOLLOW UP VIA EMAIL]

- B1.** How many projects were completed in 2018?
 - B1a.** How many incentive applications were submitted in 2018?
- B2.** What were the program's energy savings goals in 2018? (Therm)?
- B3.** Are these goals based on gross or net savings?
- B4.** How much net/gross energy savings did the program report in 2018?
- B5.** What was the total energy efficiency portfolio goal in 2018?

- B6.** We'd like to know more about the budget or total operating costs of your program to get a sense of the utility cost of energy savings. Ideally, this includes program incentives, salaries of program staff (including support staff who may not work on the project full-time), marketing, consulting, and other overhead.
- B6a.** What is the program's total operating budget?
- B6b.** If sub-programs exist, how does this break down between sub-programs?
- B7.** What type of cost effectiveness test is applied to the program?
- B7a.** If Total Resource Cost (TRC), what was the TRC in 2018?
- B8.** How does low gas prices affect your program goals, delivery, and cost effectiveness?
- B8a.** What, if anything, Is [utility] doing to manage the program in light of low gas prices? (PROBE: adjusting rebates down or up, limiting participation, limiting program promotions)

SECTION C: PROGRAM PARTICIPATION

Next, I'd like to talk about program outreach and marketing.

[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH ON PROGRAM]

- C1.** What steps does the utility take to engage potential program participants?
Probe as needed: What marketing practices do you use to increase customer awareness of the program?
- C1a.** What has been the most effective?
- C1b.** What has been the least effective?
- C1c.** Do you target certain types of customers?
- C1d.** What about commercial kitchens- Are those incentives managed through this program or a different one?
- C2.** Next, I'd like to talk about the program's trade allies.
- C2a.** Approximately how many trade allies are active in the program?
- C2b.** What types of companies typically serve as the primary trade ally contact?
- C2c.** What activities do program staff conduct to engage trade allies?
Probes: Provide training?
Require registration?
Support connections between contractors and customers?

APPENDICES

- C2d.** What roles do trade allies play in driving customer participation in the program?
- C2e.** What have you found to be the most effective ways of engaging trade allies to drive participation in the program?
- C2f.** Do you engage distributors? How? Why?

SECTION D: CLOSING

- D1.** Great! Thank you so much for your time. Those are all the questions we have for you today. Before we finish, do you have any questions for me, or anything else you would like to add?

APPENDIX C: DATA COLLECTION FINDINGS

C.1 STAFF INTERVIEW RESULTS

To support the process and impact evaluation of the 2019 Xcel Energy CO Heating efficiency programs, the EMI Consulting evaluation team conducted telephone interviews with key staff managing and implementing the Colorado Heating Efficiency Product. The interview objectives were to collect staff feedback on product experiences and evaluation priorities. Members of the EMI Consulting evaluation team interviewed the following key staff managing and implementing the Heating Efficiency product. When the Product Manager desired feedback from more than one staff member within a team, the evaluation team conduct the interview as a group.

- 1 Current Product Manager
- 1 Former Product Manager (managed product in 2018)
- 2 Engineers, selected by Product Manager
- 1 Account Manager, selected by Manager of Account Management
- 2 Business Solutions Center (BSC) Representatives, selected by Product Manager and BSC Representative
- 1 Channel Trade Manager

This memo contains our summary of the key takeaways, a description of the product, an inventory of the product's strengths and barriers, and feedback on evaluation priorities.

KEY TAKEAWAYS

Below are key takeaways from staff experiences with the Custom Efficiency product. These key takeaways provide a summary of the program context and feedback received during both the kick-off meeting and the subsequent staff interviews.

- Program processes appear to be working and implemented as designed. It is a primarily gas-focused product and was able to exceed its gas goal in 2018 with the existing dedicated resources.
- Staff report that there is limited participation in the product due to a few factors: (1) Large customers typically do not qualify for the product because they are typically gas transport customers, (2) small customers face significant cost barriers to replacing gas equipment, (3) low gas costs also limit customer interest in pursuing gas efficiency projects.
- Staff reported that it was challenging to forecast potential energy savings from DSM products such as Heating Efficiency. While the Salesforce tracking tool allows staff to document potential new projects, the sales teams use the

fields inconsistently for a variety of reasons including a desire to limit risk relating to meeting goals, insufficient data on a new project, and workflows that do not necessarily rely on Salesforce. This challenge is not unique to the Heating Efficiency product, but it is rather a portfolio-wide challenge. Therefore the evaluation team recommends this issue be addressed at the portfolio-level, rather than within the context of the Heating Efficiency product evaluation.

- There are opportunities to increase education to sales teams and trade partners on the application form. Increased outreach can help new sales team members and trade partners develop a deeper understanding of application needs and knowledge of the type of data required to process the application forms.
- Trade partners appear to play an important role in implementing this product. Research with trade partners and/or distributors could add valuable insights to this evaluation. Topics could include: qualitatively understanding market penetration, barriers to customer participation, experiences with the paper and online application forms, and experiences with the sales process.

PRODUCT ACTIVITIES, GOALS, RESOURCES, CHANGES

The following bullets present the evaluation team's understanding of the product based on staff interview results and review of available product documentation.

ACTIVITIES

The following bullets present the activities staff complete to implement the product:

- The Channel Trade Manager promotes the Heating Efficiency Product to trade partners in tandem with specific end-use products.
- Account Managers and BSC Representatives (the sales teams) conduct outbound calls to discuss prospective projects with previous customers and trade partners, they do not solely inquire about the Heating Efficiency Product as they are charged to help sell all DSM projects alongside their primary role as customer relationship managers. The sales teams also respond to customer inquiries about heating projects and promote the product to them directly.
- Once an applicant (either a trade partner or a customer) submits an application, the sales teams (i.e., BSC representatives and Account Managers) reviews applications for completeness and accuracy and enters the data into Salesforce. If data are missing from the application, the sales team member pursues the necessary information via the applicant. If the sales team member has a question about the data, they will reach out to a member from the Engineering team for support.
- All of the equipment for the Heating Efficiency Product is prescriptive, but there are calculations involved to calculate savings for products such as pipe

insulation for a certain amount of feet with certain water temperature. Members of the Engineering team set the equations for the calculations within Salesforce. They will update the calculations whenever the list of measures or rebates change, and if the sales team have questions when they are entering data into Salesforce. The engineers typically are not involved with the day-to-day data input and results.

GOALS

The following bullets present the products' goals:

- The Heating Efficiency Product's primary goal is based on net energy benefits. The 2019 net benefit goal is \$23,273 for electric savings and \$91,591 for gas savings. The electric net benefit goal remains relatively steady in 2020, but the gas net benefit goals triple in 2020.
- The Heating Efficiency Product also has an energy savings goal. The goals defined for the 2018 sample period were 8 kW, 49,241 kWh, and 18,119 Dth. The kWh savings goals double 2019 and then remains relatively the same in 2020 (6% increase). The gas goals, on the other hand, show a steady increase over time (18% increase in 2019, 35% increase in 2020).

Table C-1. Xcel Energy CO Heating Efficiency Energy Goals 2017-2020

	kW Goal	kWh Goal	kWh Cost Effectiveness Goal	Dth Goal	Therm Cost Effectiveness Goal
2017	8	44,967	NA	18,032	NA
2018	8	49,241	NA	18,119	NA
2019	7	98,026	\$23,273	21,363	\$91,591
2020	7	103,747	\$28,173	28,872	\$337,500

- Looking at 2018, the product exceed its gas and kW goal but did not meet its kWh goal. Given that the product primarily focuses on gas savings, staff did not express concern about not meeting its kWh goal.

Table C-2. Xcel Energy 2018 CO Heating Efficiency Goals vs. Actual

	kW	kWh	kWh Cost Effectiveness	Dth	Therm Cost Effectiveness
Goal 2018	8	49,241	NA	18,119	NA
Actual 2018	11.7	25,082	NA	28,763	NA

RESOURCES

The product manager relies on the following resources to implement the product:

- **Salesforce** – Account Managers and BSC Representatives can use Salesforce to track interactions with customers who are pursuing or are installing a project through the Heating Efficiency Product. Account Managers and BSC Representatives use this tracking tool inconsistently. It is also used to calculate prescriptive rebates and as a system of record for project tracking.
- **Engineering team** – The engineers create all the savings calculations when measures change and help the sales team address questions that arise when inserting data into Salesforce calculations.
- **Sales teams** – Account Managers and BSC Representatives serve as the primary resource to inform customers of the Heating Efficiency Product. The sales team will work closely with customers to facilitate completion of the application.
- **Trade partners** – The trade partners, including contractors and distributors, work closely with customers to educate them about the Heating Efficiency Product. They serve as a primary outreach arm for Xcel Energy. The Xcel Energy Trade Partner manager plays the primary role at educating trade partners in DSM products, including Heating Efficiency. The sales team has a list of contractors that Xcel works with that they can suggest to customers as needed.
- **Marketing collateral** – Marketing materials for the Heating Efficiency Product are limited. The product is marketed primarily in tandem with other end-use products and in response to specific inquiries made of Account Managers and BSC Representatives (to customers).
- **Budget** – As shown in **Error! Reference source not found.**, the budgets for this product roughly doubles from 2018 to 2019. From 2019 to 2020 the gas budget remains constant.
- **Changes** - The 2019-2020 product includes a number of programmatic changes. The below bullets highlight the changes. The changes will take effect July 1, 2019.
 - Remove the boiler tune-up measure
 - Remove the 92% and 94% efficient gas furnaces measures
 - Remove the EC Fan Motor on new furnaces

Table C-3. Xcel Energy CO Heating Efficiency Energy Budget 2017-2020

Year	Electric Budget	Gas Budget
2017	\$10,716	\$488,280
2018	\$10,874	\$488,280
2019	\$16,180	\$718,820
2020	\$16,297	\$718,820

PRODUCT STRENGTHS AND CHALLENGES

During interviews, staff identified the following strengths and challenges to implementing the Heating Efficiency Product in 2018. Strengths include factors that product staff identified as supporting the success of the product; challenges include factors that product staff identified as preventing the product from reaching its goals.

STRENGTHS

- Overall, the Heating Efficiency Product is working as intended. It is a primarily gas-focused program and was able to exceed its gas goal in 2018 with the existing dedicated resources.
- The Heating Efficiency Product allows Xcel Energy to provide quality, energy efficient heating products to people in Colorado, particularly to small businesses that cannot go without heating equipment and also cannot afford the total price of the equipment.
- The advisory board meeting is an effective way to keep the highest performing trade partners invested in the program and as a method of direct feedback.
- Staff are able to point customers to a list of contractors who specialize in heating equipment.

CHALLENGES

- There may be room to increase the efficiency of specific internal processes.
 - Forecasting
 - Account Managers and BSC Representatives are not consistently entering in potential projects into the Salesforce prospecting fields. When prospecting data is not entered, the product manager needs to spend additional time reaching out to sales team members to estimate forecasted savings.
 - Additionally the sales team need to rely on various software systems to conduct their jobs (billing, delivery, Salesforce, etc). Account Manager processes, in particular, are not reliant on Salesforce to do their job and more commonly rely on other

- software systems (i.e. billing). Managing prospecting data in Salesforce can take significant time and feels tedious – especially when managing multiple sites for one customer.
- Application Process
 - Account Managers and BSC Representatives often receive applications with errors which leads to back-and-forth communication between them, the customer, the contractor, and/or the engineers and can create delays in application processing.
 - The application changes whenever new measures are added or old measures are taken away, so it can be confusing and difficult for the trade partners to keep up with the latest application. Trade partners often call the trade manager for clarification.
 - Trade partners typically submit hard copy applications, there appears to be limited interest in using the digital application despite the training performed by the Trade Manager.
 - The application paperwork is a barrier for some customers to participate in the program, it is likely that there are individuals purchasing equipment who qualify who are not applying for the rebate.
- There was high turnover of Product Managers in 2018, making it difficult for product managers to plan for product improvements. High staff turnover was particularly challenging because there was limited product documentation explaining processes. As a result, the product managers needed to spend time learning how internal processes worked instead of focusing on planning and strategy that could better help market the product to more customers.
- It is difficult to engage customers in the Heating Efficiency Product:
 - The low cost of natural gas coupled with the high cost of equipment makes the Heating Efficiency Product less popular than other products. Many trade partners only do one or two projects in a year.
 - The abundance of transfer customers is hindering the growth of the program, most of the customers are small businesses or franchises that are not able to do upgrades, or if they are they are small scale compared to a hospital or school.
 - Staff mentioned that Minnesota is able to work with the food service industry and that brings in more customers.
 - Trade partners are reported to being frustrated when bonus periods are offered too closely together. For instance, if a trade partner rushed completing a heating project before the bonus period ended and a new bonus starts the next day, they can get frustrated that they rushed their project.

FEEDBACK ON EVALUATION PRIORITIES

During interviews, staff identified research topics they would like the evaluation to address. The following bullets compile these topics along with additional topics that the evaluation team identified based on staff interview findings. The evaluation team will consider these research topics when prioritizing portfolio-wide evaluation needs and as able, incorporate them into the final evaluation plan for the 2018 Heating Efficiency Product.

- Identify opportunities for the Custom Efficiency Product to drive greater participation in the product and/or support a greater percentage of the eligible projects that are implemented in the market at large – particularly among gas customers.
- Identify ways to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify barriers to participating in the product.
- Identify opportunities to improve the application process. (internal or external?)
- Identify ways to make entering forecasted projects and savings into Salesforce less burdensome.
- Categorize the non-participants, to see how many people started applications and did not finish, or did not start an application at all.
- Conduct interviews with distributors and trade partners to gain their insight into the above topics.
- If possible, try to align timing of trade partner interview results with an advisory board meeting so that the meeting can be used to review findings, address any concerns, and discuss opportunities for improvement.

C.2 PARTICIPATING CUSTOMER INTERVIEW RESULTS

To support the process evaluation of the Colorado 2019 Xcel Energy Heating Efficiency Product, members of the EMI Consulting evaluation team conducted in-depth telephone interviews with participating customers. The evaluation team interviewed 10 participants as part of this effort. The interview objectives were:

- Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.
- Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify opportunities to improve the application process.
- Identify methods to better engage participants in the product.
- Analyze customer experiences and satisfaction with the product.

1.1 KEY TAKEAWAYS

- Participating customers primarily learn about the Heating Efficiency product through word of mouth, particularly from industry peers.
- The opportunity to lower their upfront costs on equipment was the main motivator for participation in the Heating Efficiency product. Participants were motivated to purchase energy efficient equipment by cost and energy savings and by the opportunity for upgraded equipment.
- Participants primarily picked out equipment based on their needs and budget, and then checked to see whether it qualified for a rebate.
- Participants experienced difficulties finding a qualified trade partner to install their equipment. They reported that contractors were busy, expensive, had low knowledge of what was required to install the high efficiency equipment, and did not complete high-quality work.
- Participants reported high satisfaction with the Heating Efficiency product staff and found them very helpful while moving through the application process. However, several participants reported experiencing miscommunications with the product staff.

1.2 INTERVIEW FINDINGS BY RESEARCH QUESTION

This section describes the findings from the Xcel Energy Heating Efficiency program participant interviews. The results are organized by the research question used to address each of the research objectives outlined above.

HOW DO CUSTOMERS LEARN ABOUT THE HEATING EFFICIENCY PRODUCT?

- Participating customers stated that they primarily learned about the product via word of mouth, with five respondents stating that they heard about it from industry peers.
 - Two participants said they first heard about the Heating Efficiency Product through their prior participation in other Xcel Energy products. (the HomeSmart program and an energy audit)
 - Two other customers learned of the product through Xcel Energy staff, one of whom was contacted by a sales team representative who had been in contact with the person previously in the interviewee's position.
 - One called Xcel Energy Customer Service after purchasing his heating equipment to see if rebates were available and was referred to the Heating Efficiency Product.

MOTIVATIONS FOR CUSTOMER PARTICIPATION

- Nine out of ten customer interviewees were primarily motivated to submit applications for rebates because of the lowered upfront costs of equipment.

- One participant noted that by lowering his upfront costs, he was *"better able to steward his finances,"* while another stated that *"any bit of help to defer costs is useful."*
- Participants were primarily motivated to purchase energy efficient equipment by the potential for energy savings and by upgraded equipment. One participant expressed their desire to upgrade to more efficient equipment that could better handle the high demands of his facility; when probed, this person also reported that the rebate helped motivated them. In sum, the interviewees provided the following responses:
 - Six participants were motivated by the potential for energy savings
 - Three were motivated by the desire to upgrade to better equipment.
 - One felt that all the options for heating equipment on the market were energy efficient, so that any model she opted for would have also been energy efficient.
- When describing information that was particularly useful in helping them to decide whether or not to participate in the Heating Efficiency product, three interviewees said that rebate amounts and incentive level information was helpful, and one said information about equipment energy savings they heard from their energy auditor was useful. Three interviewees said there was no specific piece of information that was particularly helpful.
- No participant interviewees noted that they experienced challenges in deciding to participate in the program, but four described challenges that came after deciding to participate, when they were trying to determine whether their project qualified for the rebate.
 - Two of these interviewees experienced some miscommunications with Xcel energy staff related to determining eligibility.
 - One described complicated internal processes within his company that made it difficult for him to determine which of the projects across his company's multiple locations qualified: *"[I work for] a really big organization, and it is hard to track all the projects and determine which are rebate-eligible. I get an excel sheet with all the projects completed and then I have to verify they are eligible and then submit. There's so much going on, I have to review dozens if not hundreds of projects."*
 - One interviewee works on projects across the country and hired an employee to look for rebates on his projects: *"The paperwork is self-explanatory, the requirements are more difficult to understand. Hard to know what's eligible, what are the requirements - do [we] have to do it pre-construction or post-construction, what are the other hoops to jump through. Quite honestly I don't have time to do it all, that's why I hired someone else to do it for me."*
 - Another interviewee noted that he previously was not able to participate in the program because the boilers he replaced were over 25 years old.

CUSTOMER EXPERIENCE WITH THE APPLICATION PROCESS

- Eight out of ten participating customers reported completing all or part of the rebate application forms themselves,
 - Two said they completed the forms with the help of a trade partner or contractor
 - Six completed the forms entirely by themselves.
 - Two participants said they did not complete any portion of the forms
- Of the six participants who completed the forms by themselves, five stated that they reached out to Xcel staff at some point during the process.
 - The one participant who did not contact Xcel Energy staff noted that she used the manufacturers manual to find information on size and specifications that she needed from the application.
 - One said *"There were some unclear parts at first, but now that we've done it, it's easy. We get in touch with our Account Manager frequently when we have questions and it's really easy to get ahold of her"*
 - Another participant who needed to contact Xcel said *"I needed to chat with Xcel about what they wanted in the paperwork, can't recall exactly what it was - but they were really helpful"*
 - One participant who contacted Xcel during the process said they also go online to find specifications and product numbers. He said it was easier to go online than to get in touch with Xcel.
 - One participant who contacted Xcel said they got in touch to see if they needed to include efficiency studies (which Xcel said they did not need to include). The participant said *"[Xcel] made it really easy."*
- Two participants completed part of the forms, though neither recalled exactly which parts they themselves filled out.
 - Both participants said that they filled out part of the form and then gave the forms to their contractor, who completed the forms and submitted them to Xcel.
- Participating customers primarily printed out the application or filled out the PDF online, then emailed or faxed the forms back to Xcel Energy.
 - Three stated that they printed the forms so that they could pass them among different people for completion. Two of these noted that this process was facilitated by the paper or PDF form, rather than the online application.
 - One participating customer said that because he was so familiar with the forms now, and the information they asked for, he found it easier to use the online forms. This customer felt that using the online forms expedited the processing and approval of the forms on Xcel Energy's side because it was easier for their Account Manager.
- Four out of ten participants said they were familiar with the online forms

- Three participants said they had used the online application to apply for a rebate.
 - Two of these indicated they were experienced with the online application. Both represented large facilities with multiple rebate-eligible units. Both of these customers described using the online tool because of its ease.
 - One said it was possible for him to use the online tool because all his information was in one place now, whereas before he needed to carry the paper forms around.
 - One stated that he could more easily ensure that he included the correct information thereby making the approval process more simple for his account manager and speeding up his rebate turnaround time: *"We've shifted almost entirely to the online form, that way we know we're submitting everything we should be. I think it's more foolproof than just printing and filling it out."*
- Six participants said that they submitted their application forms themselves.
 - Two of these stated that they, or someone else at the company typically submitted application forms.
 - Two participants said their contractor submitted the forms
 - One participant had a consultant he hired to submit form for him (for construction projects across the country).
 - One participant did not know who submitted his forms
- Participating customers generally did not express concerns with rebate processing or with the time it took to process the rebate.
 - Three mentioned that they felt the rebate processing time could be shorter, and
 - One customer with multiple facilities said he sometimes needed to follow-up or chase down rebates with his account manager.
- The range of reported rebate processing times varied from 10 to 90 days.
- The most common processing time described was 30 to 45 days.

CUSTOMER EXPERIENCE WITH THE PRODUCT PROCESS

- Seven participants noted that they or their contractor were in touch with Xcel at some point during the process of participating in the Heating Efficiency product.
 - All seven said that they were the primary contact with Xcel.
 - One participant said she never needed to reach out to Xcel throughout the process.
 - Two were unsure whether their contractor reached out to Xcel, but they themselves had not.
- Participants primarily prefer to contact Xcel via email.

- Of the five participants that answered the question, four participants said they contacted Xcel through both email and phone calls.
 - One said he like to email to ask his Account Manager at Xcel what a good time to call would be.
 - One said he preferred email because he experienced some miscommunications when speaking with an Xcel representative over the phone.
 - Another also experience miscommunications when contacting Xcel and felt that this was partially due to delays in Xcel responding to his emails.
- One participant said he preferred to contact Xcel via phone because he felt his email account was unreliable.
- Participants found their contractor through a variety of methods.
 - Two participants found their contractor through a bidding process, where they determined the equipment (or specifications for the equipment) they wanted to install and then put the project out for bids from contractors.
 - Three participants had worked with their installer on a previous project.
 - One had performed maintenance on their boiler, another was from a large contracting firm and had worked on a previous project for the interviewee, and the third was a personal connection to the interviewee.
 - One found their contractor through the manufacturer.
 - Two participants noted that the process of finding a qualified contractor was very difficult.
 - One of these said it had been a “years long process” to find a competent installer, and the participant reporting having to learn hydronics in order to determine what he needed. The contractor he found had moved recently from upstate New York and only installs boilers. He reported being surprised that installers from large companies did not have the ability to do the installation he needed.
 - Another participant said *“Everyone is having trouble finding a good subcontractor. It's not specific to the equipment, it's the market.”*
 - One participant completes all installations in-house. He felt that it was cheaper and a more efficient use of time to train his own employees to install their equipment, including the boilers that qualified for the Heating Efficiency product. He noted that he needed to show his Account Manager that his staff had the correct training and certifications to complete the boiler installations.
 - One participant did not answer the question
- Participants primarily stated that their projects to longer to complete than they expected.

- Four participants stated that their project took longer to complete than anticipated. One of these noted that this was due to a shipping error, where his equipment was delivered incorrectly.
- Two participants said their project took as long as they anticipated.
- One participant said the project took less time than anticipated.
- Three participants did not answer the question - one of these did not answer because he was not involved with the project during installation.
- Of the participants who answered the question, participants largely felt that their equipment was performing as expected and providing them with energy savings.
 - Four participants said their equipment was performing as expected.
 - One of these participants said that it was too hard to measure performance in terms of energy savings though, so he would *"really need to do some math"* to verify whether the new unit saved him energy.
 - Another of these participants said that they had bought equipment to test performance in-house, and they test the equipment once a year.
 - Three said they had seen energy savings.
 - One noted that he has looked at the energy savings but *"had not really tested it,"* and thought he had seen a 30-35% reduction in energy.
 - Two said they were replacing like for like and noted that the equipment provided savings but not over what they had previously with the old unit.
 - One noted, *"...My gas has definitely seen a difference. But I had the same equipment in there as before. But it does make a difference."*
 - One was not involved in measuring but said he thought they could probably improve their monitoring practices to *"make sure [they] were achieving the right savings."*

SATISFACTION WITH THE HEATING EFFICIENCY PRODUCT

- Overall satisfaction: Six ranked this aspect 4-5 (satisfied-extremely satisfied), one participant gave this aspect a three (neither satisfied or unsatisfied).
- Product staff: Seven ranked this aspect 4-5 (satisfied-extremely satisfied).
 - Customers reported frequent contact with product staff, who they consulted on determining equipment eligibility and application requirements.
 - One interviewee noted *"we were calling constantly. There was a lot of hand-holding, you might call it."*

- Two customers expressed some frustration with product staff though, noting that response time from the Account Manager was sometimes longer than they expected and that there were miscommunications from staff about equipment eligibility.
- Time it took to Receive Rebate: Five ranked this aspect 4-5 (satisfied-extremely satisfied), one participant gave this aspect a three (neither satisfied or unsatisfied).
 - One interviewee who ranked this aspect as a 3 stated that the turnaround *"could be faster."*
 - One interviewee declined to respond to this question, stating that he did not pay attention to how long it took to receive his rebate.
- Time Required for Whole Process: Six ranked this aspect 4-5 (satisfied-extremely satisfied), one participant gave this aspect a three (neither satisfied or unsatisfied).
 - One respondent who ranked this aspect a three had a large property and went through the rebate process for multiple boilers they replaced, stating *"we have 36 boilers, so we had to go to each, get information off the boiler itself, then come back through and input all the information. There's a lot of forms."*
- Rebated Equipment: Four ranked this aspect 4-5 (satisfied-extremely satisfied), two ranked this aspect as a 3 (neither satisfied or unsatisfied).
 - One interviewee was neither satisfied or unsatisfied and simply noted that *"it's [the] equipment, it always fails."*
 - One interviewee who ranked his satisfaction for the rebated equipment as neither satisfied or unsatisfied had multiple facilities across the country, and typically used three different brands – he noted that some brands were more reliable than others, but he would not rate his satisfaction with any of the three brands of high efficiency equipment he used as a "very satisfied."
 -
- Size of Rebate: Five ranked this aspect 4-5 (satisfied-extremely satisfied), two ranked this aspect as a 3 (neither satisfied or unsatisfied)
 - One participating customer, who was neither satisfied or unsatisfied, stated, "the thing to keep in mind is how much time and labor it takes to go through the forms to make it worthwhile."
 - One participating customer who was neither satisfied or unsatisfied stated "it could always be bigger."
 - One interviewee who reported being "satisfied" with this aspect noted that, while he felt the boiler rebates were fairly substantial, the rebates for water heaters seemed low: *"... a water heater can still be thousands of dollars."*
 - One interviewee who reported being "satisfied" felt that the *"rebates could be more motivating."*

BARRIERS TO FURTHER PARTICIPATION

- Participants ranked the difficulty of performing various aspects of the Heating Efficiency product on a scale of 1 to 5, with 1 being extremely difficult and 5 being extremely easy.
 - Completing rebate forms: 4 participants ranked it a 5 (very easy) and 2 participants ranked it a "3 or 4."
 - One participant who ranked it a 3 or 4 said it was *"Pretty straightforward, but we needed some assistance on figuring out exactly what they were asking for."*
 - The other participant who ranked it a 3 or 4 said it was *"Hard at first because they were doing self-install and had to attach their boiler certification."*
 - Understanding the rebate process: 2 participants ranked it a 5, two participants ranked it a 4, one ranked it a three and one ranked it a 2.
 - The participant who ranked it a 3 said he had some confusion about the timeline on submitting a project post-construction. He was told he had to have it inspected by a certain time, but really had to submit the receipts by that time.
 - The participant who ranked it a 2 was from an HOA and was installing a water heater in the clubhouse. He said there was some confusion over whether they should submit an application through the residential or commercial product.
 - Determine what equipment/models are eligible: Three participants ranked it a 5, one participant ranked it a 2, and two participants said the question did not apply because they had already installed the equipment when they applied for the rebate.
 - The participant who ranked this aspect a 2 said there was a miscommunication over whether their pipe wrap installation qualified for the Heating Efficiency product, but that ultimately he received the rebate for it.
 - One participant who said the question did not apply owned multiple properties and installed the same boiler in each of them. He said this was the first time he was able to apply for a rebate on that boiler because the boiler he was replacing was less than 25 years old.
 - The other participant who said the question did not apply said, *"I haven't seen much information on what units qualify. I chose our boiler based on what was going to be the best fit for us, going off of knowledge of the vendor, square footage, and demand. We worked with [a vendor] to choose the right one and then worked with the account manager [to see if it qualified]."*
 - Get in touch with an Xcel Energy representative: Four participants ranked this a 5 and two participants ranked it a 4.

- Find a contractor to install equipment: Two participants ranked it a 5, one gave it a 3, one gave it a 1 or 2, and one participant gave it a 1.
 - One participant who ranked it 3 or lower said they encountered a lot of incompetence when trying to find a contractor and that the contractor they ended up hiring *"flunked pre-inspections."*
 - Another said there was *"10 year of history"* related to him struggling to find a qualified installer. He recently found an installer he like who had moved from upstate New York.
 - Another who ranked it a 3 or lower said *"In the area finding an installer is difficult. Their availability is limited, the cost is so high, and workmanship is terrible. It's almost like they don't care what kind of product they give you because there's no shortage of work."*
- Three interviewees said they did not experience any challenges in deciding to install the high efficiency model of the equipment installed
 - One interviewee said that they themselves did not have any challenges, but their installer did experience challenges noting that *"it's complicated because you have to put it in sync with four different holding tanks and another boiler."*
 - Two interviewees were replacing like for like – the same piece of equipment they had previously
 - One interviewee noted that choosing the correct model of equipment was challenging – their old boiler was way oversized, installed model has a stainless steel heat exchanger
- The primary barriers participants described included (1) finding qualified trade partners that could install the equipment and (2) understanding what equipment was eligible for the rebate.
 - Five interviewees reported that finding a qualified contractor to install their equipment was challenging.
 - These interviewees said it was particularly difficult to find installers who were knowledgeable about the requirements for installation and who completed high quality work.
 - Five participating customers reported that it was difficult to determine whether their equipment qualified for a rebate.
 - Two disagreed with the requirements themselves, feeling the requirements were either arbitrary or ineffective. One of these disagreed with the use of AHRI to determine efficiency and the other felt that specifications for pipe wrap was arbitrary. He felt that other models that achieved the same energy savings should qualify for Heating Efficiency Product rebates.
 - One felt the process to determine what equipment qualified took so long, that they hired a consultant to go through the process for them: *"It's hard to know what's eligible, what are the requirements. What are the hoops to jump through? Quite*

honestly, I don't have time to do it all, that's why I hired someone else to do it for me."

- Another participating customer, who was applying for rebates for a project completed in an HOA clubhouse, said that it took a long time to determine whether the project fell under the commercial or residential prescriptive program, or whether they would need to apply for rebates as a custom project.
- A fifth participating customer noted that, while it was not difficult to decide to participate in the product, the challenges came afterwards when trying to determine whether their project qualified for a rebate. This customer noted that there were lots of issues with miscommunications with staff regarding eligibility.

INCREASING PARTICIPATION IN THE HEATING EFFICIENCY PRODUCT

- Conduct more proactive outreach during the decision-making period.
 - Three participating customers noted that they wished Xcel Energy had been part of their decision-making process by helping them determine which rebate-eligible units best fit their needs or making suggestions for eligible equipment when the unit they are considering does not qualify. Customers primarily chose their equipment first based on their own needs, and then determined whether the equipment was rebate-eligible. Participants felt that they would benefit from more guidance through the decision-making process. One participant said, *"One of the things you're missing - We picked the heater, we knew what we needed, we didn't know if they were going to meet the criteria or not. We didn't look at what Xcel thought was the most efficient, and neither did Xcel volunteer in that process. It was coincidental that the boiler we wanted fell within Xcel's rebate program. Being more proactive would be better, intervene by saying 'Hey if you spend another 2000 you'll get this savings'"* Another said, *"It's one thing to analyze a plan. It's another thing to say, hey, I see you're installing pipe installation, but it's a little bit below our spec, if you change the spec to this, or were able to, we could qualify you for this much more money."*
- Continue and build staff capacity to "hand-hold" customers through the application process.
 - Seven out of ten interviewees were in contact with staff at Xcel Energy at some point during their application process and three stated that the high-touch assistance with their forms and throughout the process to be a strength of the product. Interviewees felt that Xcel Energy should consider creating

greater capacity for the staff to provide high-touch service and handholding throughout the application process.

- Ensure the sales team is familiar with product requirements.
 - Two participating customers experienced miscommunications with product staff that delayed projects and lengthened rebate turnaround time. Ensuring that the sales team is fully apprised of qualifications and eligibility requirements for the product could help avoid miscommunications.
- Include project detail on rebate check.
 - One interviewee reported that they submit many rebate applications and sometimes have trouble tracking which rebates he received because the rebate checks did not clearly state to which project it was associated. This interviewee suggested including the facility address on the rebate check to assist them with record keeping.
- Provide greater support to connect customers with trade partners. Participants felt that Xcel Energy could facilitate connections between customers and qualified trade partners, alleviating customer struggles with finding qualified trade partners.⁵ Participating customers asked for increased promotion of qualified installers on Xcel Energy's Heating Efficiency Product website and additional information on the promoted trade partners. One participant suggested providing space on the website for customers to rate their experience with listed trade partners or include the trade partner's certifications or specialties.
- Increase promotion of the product through channels like bill inserts.
 - One participant felt that Xcel should send flyers with bills on commercial accounts to make small business owners like himself more aware of the rebate options that are available. *"Not on TV or radio – a flyer that would reach commercial customers directly. The contractor that I heard about the program from said that he had a lot of buildings and could save thousands of dollars, he was incredulous about the fact that I wasn't participating."*

⁵ Xcel Energy currently lists participating trade partners in the Heating Efficiency Product. It is not able to recommend specific trade partners to customers.

C.3 TRADE PARTNER INTERVIEW RESULTS

To support the process evaluation of the Colorado 2018 Xcel Energy Heating Efficiency Product, members of the EMI Consulting evaluation team conducted in-depth telephone interviews with Trade Partners. The evaluation team interviewed 10 trade partners as part of this effort, including eight contractors and two heating equipment distributors. The interview objectives were:

- Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.
- Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify opportunities to improve the application process.
- Identify methods to better engage trade partners in the product.
- Analyze customer and trade partner experiences and satisfaction with the product.

KEY TAKEAWAYS

- Trade partners contacted during the recruiting process frequently were unaware of the Heating Efficiency rebate program despite applications having been submitted for projects they completed.
- Interviewees also felt that lack of awareness was a barrier to their increased participation in the Heating Efficiency product.
- Trade partners and distributors felt that Xcel Energy could support participation by increasing email communication so that the program stays front-of-mind.
- Several interviewees felt that the high efficiency boiler equipment did not achieve the reported energy savings, either because it did not perform optimally in the field, when operated by customers, or because they disagreed with how rebate eligibility standards were set.
- Of the seven trade partners who responded to the question about the online application, four were aware of the new online application but had never used it. Two of these respondents who had not used the online application questioned its usefulness due to the various number of people that needed to complete and/or sign the document. The remaining three trade partners were unaware of the online application.

INTERVIEW FINDINGS BY RESEARCH QUESTION

This section describes the findings from the Xcel Energy Heating Efficiency program trade partner interviews. The results are organized by the research question used to address each of the research objectives outlined above.

CONTRACTOR MOTIVATIONS TO PARTICIPATE

- When deciding whether to recommend the Heating Efficiency program to one of their commercial customers, trade partners stated the most useful program information was rebate and incentive levels (4 mentions), the application process (3 mentions), and eligible equipment and equipment details (3 mentions). Respondents also said that support – through informational materials or having an Xcel Energy representative readily available – was also useful (2 mentions).
- When asked what aspects of the Heating Efficiency program trade partners discussed with their customers, 5 of the respondents who answered the question said they talked about the incentive amounts. Two said they also talked about long term savings, and two also said they talked about “all aspects” of the program. Other aspects mentioned include the application process, options for combining incentive programs (specifically through the CPACE program) and eligible equipment options.
 - One respondent described his conversations with the customer: “You tailor the conversation so they know what they need to know but don't overwhelm with information that might delay the contract.”
 - Another respondent said that his customers sometimes come to him already having some awareness of the rebate programs and processes generally, because they have applied for them during other projects, like lighting.
 - One respondent said in general, he does not feel like he has enough information to promote the program and thought Xcel Energy could do more to increase awareness.

BARRIERS TO FURTHER PARTICIPATION

- Four contractors stated that their customers had no concerns during initial discussions about the rebates. Other contractors reported that customers were primarily concerned about:
 - the paperwork and application process (3),
 - the time frame for completing the process and receiving their rebates (2)
 - and the rebate levels (2).
- Five Trade Partners described the complexity of energy efficient heating technology as a challenge to selling more additional units. Customers can “get lost in the mire” of technology changes and have difficulty understanding how energy efficient equipment functions. Three Trade Partners felt that their customers do not operate their equipment so that it

achieves optimal efficiency. One Trade Partner stated that “this is the biggest issue with the boiler rebates, there’s no requirement for operating them to achieve the highest efficiency” and he is more likely to recommend mid-efficiency boiler equipment because it is less expensive for the customer and in the field it operates equally (or more) efficiently as the high efficiency equipment.

- Another contractor stated: “It might be that efficient when you’re testing in the lab, but as the guy with the wrench who’s installing it, I don’t see that energy magic of it.”
- Six of eight contractors said identified the following barriers to pursuing heating efficiency rebates.
 - Three described lack of awareness as their reason for completing eligible projects without applying for rebates. Two of these said they did not know enough about the program, including what equipment was eligible. The other was unclear whether his company was a “qualified installer” for all projects.
 - Two provided explanations related to application requirements and eligibility, noting that there was a lot of initial legwork required to determine whether the customer was eligible for the program and whether the equipment was a good fit for the customer. One contractor said that he *wanted to make sure [he] would make the sale before putting in the work.*
 - Quote from contractor: *“Xcel Energy has a lot of requirements for the rebate, most of the time it is a huge rebate, so we make sure we check all the requirements off before we even talk about it.”*

INCREASING PARTICIPATION IN THE HEATING EFFICIENCY PRODUCT

- Of the seven respondents who provided suggestions for how Xcel Energy could help resolve the challenges they associate with the Heating Efficiency program, four said they could improve trade partner awareness and understanding of the program.
 - Two of these respondents mentioned that they would benefit from additional emails or flyers on a more frequent basis to *“keep it front of mind. We forget about [the program] day to day.”*
 - One did not feel that the emails they received were being delivered to the correct employee at their company. This respondent stated: *emails are helpful because it keeps [the program] in the front of mind,* and also noted that *there’s a lot of turnover, so it’s an ongoing training process.*
 - Other respondents were not knowledgeable about key aspects of the program and suggested increasing awareness.
 - For example, one respondent did not know whether his business was a “qualifying installer” for all Heating Efficiency projects.

- Another did not know who their contact person was at Xcel Energy and said he “*wouldn’t know where to start*” if he needed to get in touch with someone there.
- Two thought that Xcel Energy could increase the opportunities for using the program as a marketing tool. One said they could do this by putting an “Xcel Energy stamp of approval” on equipment that Xcel Energy recommends and the other felt Xcel Energy could better promote contractors who are qualified to install rebate-eligible equipment: *‘It would be another feather in the cap to say “I’m an Xcel Energy qualified installer, an Xcel Energy partner”’*
- Three respondents (two trade partners and one distributor) felt that Xcel Energy should adjust how they calculate energy savings and rebate standards/eligibility.
 - One of these respondents disagreed with setting the rebate-eligible equipment standards using AHRI: “The problem is that the efficiency curves are three dimensional, if you change any of the parameters, the efficiencies change. In other words, if you change the return water temperature, you’re going to have a different efficiency, if you change the firing rate you’ll have a different efficiency. With AHRI they decided to pick one point on a 3D curve as THE efficiency. It’s at 80-degree return water temperature and 100-degree delta T across the boiler at 100% firing rate. No boiler will EVER operate at that efficiency rate.” This respondent also noted that he knew of a model that he felt was the “best on the market” but did not qualify for a rebate because of the AHRI standards. When he talks to contractors who want to install it, he tells them it does not qualify for Heating Efficiency program rebates, but that they can apply for custom rebates. He said most do not want to apply for custom rebates because the process is too complicated.
 - Of the other two respondents who mentioned adjusting standards, one felt that there should be increased incentives on mid-efficiency units, particularly those with “turndown,” which reduce standby energy losses. The other also felt that standards for rebate-qualified equipment should be lower, stating that today’s equipment is much more efficient than even 20 years ago. I wouldn’t push for the bottom baseline but lowering their standards would get more of the really old equipment replaced sooner and increase the affordability of the requirements. The highest efficiency stuff is much more expensive.
- When distributors were asked if they had any recommendations for improving the program, one of the two said they had none: “I don’t know, I think that Xcel Energy is doing the right thing. Natural gas is available in limited quantity so I think they’re doing fine.” The other felt that Xcel Energy could do more to increase awareness of the program on the commercial side, particularly when compared to the residential side, noting that they “see a lot of representation on the residential side, less so on the commercial side.” This distributor also recommended considering increasing the amount of rebate that goes to the contractor – Although he was not sure

what he thought was more effective, increasing incentives for contractors who could promote the program to end-users or increasing incentives for end-users, who would then ask their contractors about eligible equipment.

- One contractor suggested that Xcel Energy could support further participation in the program by sending him more leads. He already gets some from customers who do their due diligence and check the Xcel Energy website, which lists his contact information, but the contractor said that they would appreciate additional leads.
- Other suggestions receiving single mentioned include reducing paperwork and following up on the operation of equipment to ensure it achieves the correct efficiency levels.

ROLE OF HEATING EFFICIENCY PRODUCT IN SALES

- Of the six respondents who described their marketing practices, four said they do not do marketing to attract new customers. These respondents said that either they primarily worked with existing customers, relied on word-of-mouth, or that their customer found them by searching on the internet.
 - Of the two who said they do active marketing, one described using the Xcel Energy rebate program as a marketing device while the other stated that they did not.
- Six out of six trade partners who answered the question stated that they discuss Xcel Energy rebates at the beginning of their sales process – typically when the sales person or contractor is out at the job site. Two stated that they talk to their commercial customers about rebate options as soon as they assess the needs of the customer and begin considering solutions. One respondent stated: *"As soon as we start talking solutions...after the risk assessment. The asset plan will include some verbiage about potential utility rebates, and then we would typically get on Xcel Energy website and see what the rebates look like...look at incentive levels, and then outline it in report to them. We include rebate info in the first deliverable to them."* Another noted *"Very discuss rebates early on. We're involved in initial system selection. Any advantages with the rebate program can give us might help drive that sale"* suggesting that trade partners use the rebate program as a selling tool in the field. One also said they would not discuss the rebate-eligible option until they know the client "checks all the boxes" for the rebates.
- Respondents most commonly stated that lowering upfront equipment costs was the main motivator for the customers to participate in the Heating Efficiency program, with six mentions.
 - Two other respondents said that the ease of using the program was a motivator for their customers.
 - Two also said that getting upgraded equipment drove participation amongst their customers: *"Pay Now or Pay Later is what I always tell them."*

- Other motivators mentioned one time include lower energy bills, long term costs, and valuing sustainability. One respondent also mentioned that he encourages his customers to take advantage of the rebates now, because he felt there was a risk that the rebate program would not exist in the future. This respondent said that this was a prevailing sentiment in the heating industry.
- Two distributors were asked about their sales process with contractors. One said they sell almost 100% on a per-job basis rather than stocking contractors for their truck. The other said he did a little of both. He also said he sold both parts and equipment to contractors for installations and replacements.
- Both distributors described playing a significant role in recommending equipment types to contractors, though one said it differed from job to job: *We have a pretty significant role. Contractors have a tendency to sell what they know, so we influence that both with the training and through the design build.*
- One distributor, who was also a manufacturing representative, described his interactions with contractors as: *Differs job by job. We look at "Are they doing a plan and spec, Are they doing a retrofit... replacement?" The first order of business is to figure out what the needs are and ask them what their customer wants. Do they want low cost, do they want efficiency, do they have access problems? We find out what the needs are and then utilizing the different products we represent, try to fill their need.*
- The two distributors differed in the extent to which they recommend equipment eligible for incentives from Xcel Energy Heating Efficiency offerings for commercial projects.
 - One stated: We work closely with Xcel Energy and [the Xcel Energy residential trade manager]. We have a coordinated effort between us, the wholesale supplier and Xcel Energy to get the message out and keep people up-to-date. We recommend equipment on a continuous basis, we're very actively involved. It was unclear why this distributor mentioned the Xcel Energy residential trade manager by name as opposed to the commercial trade manager, but presumably the distributor sells equipment to both sectors.
 - The other gave more conditions to their answer, mentioning that they did not agree with Xcel Energy's use of AHRI standards to determine the efficiency level of equipment and often would not bring up the rebates unless the contractor or customer mentioned them.
 - *"Many times we don't know until a contractor brings that to our attention - If they're looking for condensing equipment, which is such a huge percentage of the market now...I think a lot of times they just assume if it's condensing equipment it will qualify. Which isn't necessarily true. So if that issue is brought up - and sometimes it's the engineer, sometimes it's the contractor, then we can suggest products that definitely will*

qualify for the rebate. [It] can come from all three - end user, engineer or contractor. There are some contractors that are out there, and that's how they're trying to get some of the business is through the rebates. There are other contractors who are not aware I think and it's the engineer or the end user who are wanting the rebate dollars. I have many conversations where I bring it up, asking "Are you going for rebates on this project?" and part of that is self-preservation. I actually have a product that I think is the best product on the market but it doesn't qualify because Xcel Energy uses AHRI. So I will ask that question, and sometimes people don't know about rebates, sometimes people say "yeah we're going for rebates on this", other times no - they just want high efficiency equipment. Sometimes they want high efficiency equipment but don't go for the rebate because there are high efficiency products that aren't covered by the rebate."

OPPORTUNITIES IN THE HEATING EFFICIENCY INDUSTRY

- The respondents lacked consensus in the ideas for emerging technology. Two respondents felt there was opportunity to achieve more energy savings by somehow incenting improved operational efficiency on equipment. One respondent explained, *"Once high efficiency equipment is installed, it can run inefficiently. Making sure or having some follow-up to confirm that the boiler is running at the parameters it was designed for. Return water temperature needs to be low to achieve the gas and energy savings – they should have someone follow up on that. They can sell the project but it's up to the owner to operate it the way that it's supposed to be operated."*
 - Other emerging technologies mentioned included combination units, mini-splits, and belt technology.
 - Four respondents said they could not think of any emerging energy efficiency opportunities for Heating Efficiency Program customers.
- When asked about trends in the heating industry, two mentioned that interest in energy efficient equipment was increasing. One of these thought that customers were more interested currently in the savings associated with energy efficiency rather than being driven by the value of sustainability: *There's less interest in the feel-good side of energy and conservation. It seems like now [customers'] interest in efficiency is more economical. Five years ago it was the buzzword...now financial decisions are driving interest in it.*
 - On the other hand, one respondent noted that they felt energy efficient equipment was becoming less popular.
 - Other trends in equipment mentioned included ductless, boilers with factory controls, mini-splits, forced air, VRF technology, combi-units and geothermal energy.

- Respondents generally did not feel that there were particular business types that replaced heating equipment more frequently than others, with seven trade partners stating that this was the case.
 - Hospitals, multifamily properties, and industrial facilities were described by two respondents as replacing heating equipment particularly frequently. The respondent describing hospitals stated that, *health care facilities needs to have boilers running all year, to control both heating and humidity. Humidity requires them to run boilers more.*
- Respondents also generally did not feel that there were particular business types that were in higher need of assistance to motivate them to install higher efficient heating equipment, with six trade partners stating that this was the case.
 - Food service, office buildings, and commercial real estate were the three businesses described by three respondents as being slowing to adopt high efficiency equipment. When describing office buildings, one respondent said *owners of commercial real estate just want to get buildings as good as they need to be, because they don't want to spend a lot of money upfront when my customer or tenant is going to get the reduced electric bill. All they get is the cost, the tenant gets the savings benefits.* This respondent reported combining the Heating Efficiency rebates (and other Xcel Energy rebates) with the CPACE program which reduces the “split incentive” by offering financing options on energy-related projects: *CPACE provides owners with an avenue to justify making that expense. And utility rebates helps them take a step in the right direction*

EXPERIENCE WITH HEATING EFFICIENCY APPLICATION

- Seven of the eight contractors interviewed stated that they helped their customers complete some or all of the Heating Efficiency program application paperwork.
 - Five contractors said they assisted customer with part but not all of their forms by directing them to the forms on the website and providing them with the equipment information (model, serial number, and specifications), or modifying the invoice. One of these contractors mentioned that they primarily apply for rebates as part of a larger project, so they “fill out the part pertaining to the equipment [they’re] providing.”
 - Three contractors complete the forms entirely for their customers: “We do all the forms [and] all the invoices start to finish every time”
 - An illustrative paraphrase from a contractor: “We do anything that needs to be done because we want to make the buying process as simple as possible. We work it into the contract whether we will take care of the rebate application process or not, and whether the rebate will be taken off the invoice or go directly to the customer. It’s a little

bit different every time...we want to do whatever the customer is comfortable with to make sure that the sale goes through."

- Trade Partners often described multiple people at their company being involved in the Heating Efficiency application process.
 - In some cases, sales people initiate the process by selling the equipment while administrators or office managers complete the rebate forms: *"Technicians are out in the field talking with the customer and handle the rebate conversations. I handle all the Xcel Energy rebate forms."*
 - In another case, the forms are passed around the office, with different employees completing the portions of the forms that they are most familiar with. They then send the completed forms to the customer, who signs and submits them: *"We take over the paperwork process and just send the customer a filled-out application to sign. We do it because we know it's easy, the customer wants as little to do with it as possible."*
- Trade Partners reported having rebates going both to the customer and to their company.
 - Two contractors stated they do both, depending on customer preference and the "risk" involved. One contractor felt that boiler rebates were less risky – They reduce the rebate price off the invoice at their "own personal risk" because they feel confident that the rebate will be approved.
 - Two contractors stated that most of the time the rebates are sent to the trade partner's company. One noted that they give their customers an instant discount directly off the invoice for all prescriptive rebates. This Trade Partner also noted that commercial rebates are more difficult for them to provide rebates instantly than for residential rebates because the "amount of kilowatt hours changes over the course of a month or a week."
 - Two contractors stated that rebates are sent directly to their customer.

EXPERIENCE WITH ONLINE APPLICATION

- Of the seven trade partners who responded to this question, four were aware of the new online application and three were unaware.
- Of the four who were aware, all four also said they had never used the online form. One mentioned that while he had not used the form himself, he thought someone from his company may have. Another said that he had seen it and was not "opposed to it" but had not used it yet because the PDF process was still available.
- Two respondents who had not used the online application questioned the usefulness.
 - One had different people at their company complete different sections of the paper forms and did not feel they could continue to do complete

forms that way with an online application: *"I imagine it's not difficult, but I just don't see the reasons why it's better. We fill the PDF forms out piecemeal, and they get passed around over time. An online application wouldn't work for this, we would have to have all our ducks in a row. With a PDF you can look at and make sure you have all the information."*

- Another said that they complete forms and send to their customers to sign and submit. They were not sure how they would be able to have the customer sign the forms using an online application.
- Three respondents mentioned that, though they had not used the forms yet, they thought they would be useful: *"Anything that makes it easier is good"; "That would cut down on us filling things out by hand."* One noted that they did not fill forms out themselves but thought that the customer would find the form useful.
- Four respondents thought that training provided by Xcel Energy would support their use of the online forms: *"Anything that makes getting answers quicker and easier is good"*
 - One respondent said that they felt group trainings would be the best way for Xcel Energy to support them in using the online application.
 - Another hesitated before noting that *"trainings would be good as long as they are actually beneficial for both parties; typically training is always welcome."*

SATISFACTION WITH THE HEATING EFFICIENCY PROGRAM

- Of the eight respondents answering the question, three said they initially became aware of the program because they are trade partners with Xcel Energy and had received an email or spoken to someone from Xcel Energy in person about the program.
 - Three were not sure or could not say with certainty that they had specifically heard about the Heating Efficiency program distinctly from other Xcel Energy rebate offerings. One of these respondents stated that his customer had completed the form entirely without him – the contractor did not know that the customer had applied for a rebate on the project.
 - The remaining respondents answering this questions said they heard about the program through an email and through "word-of-mouth" from another contractor in the industry.
- Four respondents said they had attended meetings about Xcel Energy rebates, but only one reported that they had met with an Xcel Energy representative specifically about the Heating Efficiency program.
 - Three said that meetings should occur more often or that they hoped to attend meetings more often: *"It was a trade partner meeting with one of our suppliers and Ann Kirkpatrick - they were partnering. It was*

really great, really informative. It was the first time they'd ever been to one. I think they should do that more often."

- Three respondents stated that they had pursued rebates outside of Xcel Energy's territory, for example "in Colorado Springs" or with United Power. All three said their experience with Xcel Energy was superior: *"There's a couple others around here, but their rebates don't even come close to Xcel Energy's...the size of the rebate, the ease of use, all of it. Oh, it's top-notch"*
- No participants mentioned that they had any feedback or critiques from customers who had applied for rebates. One respondent said *"No, not really, once we had the equipment installed and they're up and running, customers are pretty happy with everything"*
- In general, trade partners reported being very satisfied with the Heating Efficiency program and gave aspects of the program the following ratings:
 - Overall Satisfaction with the Program: 4.5
 - Satisfaction with Efficiency Program Staff: ⁶5
 - Satisfaction with the Size of the Rebates: 3.5 to 3.75
 - Satisfaction with the Rebate Process: 4.67
- The aspect of the program with the lowest ranking was the size of the rebates, which one respondent gave a "2 or 3." This respondent said he felt the rebates for mid-efficiency equipment should be increase. Another said "I think it's incentive enough, although the consumers always want more."

C.4 PEER UTILITY BENCHMARKING RESULTS

INTRODUCTION

EMI Consulting conducted secondary research and in-depth interviews with key staff at peer utilities that operate heating energy efficiency programs. The objective of the peer utility benchmarking research was to understand how peer utilities were approaching key issues related to implementing heating efficiency programs. The evaluation team's findings are informed by interviews with key informants (e.g., program managers) at four utilities (shown in this appendix as Utilities A-D), and by secondary research into the heating efficiency offerings by two other utilities (shown in this appendix as Utilities E and F). These utilities were selected because they have comparable territories and/or programs to the Xcel Energy Heating Efficiency Product. This enables the evaluation to provide an "apples-to-apples" comparison, and to evaluate the set of circumstances (such as regulation, retail channels, demographics) that impact program plans at peer utilities.

⁶ Two respondents declined to answer in regards to the question of program staff because they had never interacted directly with the program staff.

Interviews focused on topics similar to other data collection efforts while also emphasizing the research objectives specific to peer benchmarking interviews identified below. Evaluation objectives addressed by peer benchmarking research are:

- Identify barriers to customers participating in the product and opportunities to drive greater participation in the product.
- Identify opportunities to expand the product into particular market segments, e.g. food service customer opportunities.
- Identify opportunities to improve the application process.
- Identify methods to better engage trade partners in the product.

The remainder of this appendix is organized into the following sections:

- Key takeaways
- Peer utility background information
- Methods for engaging trade partners
- Methods for driving customer participation
- Application processes
- Implications of low gas prices
- Measure and incentive values

KEY TAKEAWAYS

Overall, peer utilities consider their heating offering to be a part of an overall commercial and industrial program instead of a stand-alone program. All of the utilities offer prescriptive and custom incentives. Additional key takeaways and details are:

- None of the peer utilities have a specific commercial heating program, instead they have it rolled in with their other commercial offerings, like commercial kitchens or custom projects.
- Interviewees found direct engagement with trade partners to be successful, such as hosting events or calling them directly, while passive marketing, like mailers, were less successful.
- All of the utilities conducted direct outreach to customers by knocking on doors. They found this an effective way of reaching out to participants—particularly when they left behind an LED light or faucet aerator. They also found that leaving behind materials such as flyers with relevant case studies on them tended to be successful.
- Low gas prices have affected the utilities differently, three reported feeling effects while one did not. The three utilities feeling effects of low gas prices reported taking the following actions to help mitigate those effects:

- Reduced marketing budget to lower costs.
- Increased marketing budget to driver greater participation.
- Switched to using the Utility Cost Test to account for benefits and costs differently.

PEER UTILITY BACKGROUND INFORMATION

This section provides background information on the structure of the heating efficiency programs interviewed as part of this benchmarking research. As shown in **Error! Reference source not found.**, the four utilities interviewed all house their heating offerings within their Commercial & Industrial program and do not stand alone. The programs are all stable and not experiencing any major changes. Below is feedback on key program elements:

- All of the utilities provide direct installation of small measures (i.e., aerators) as part of their direct outreach marketing efforts.
- The utilities all have small programs, run by the equivalent of 1-3 full time employees not including the implementation vendors.
- All the utilities work with a vendor to implement the program.
- The utilities rely on their trade partners to supplement marketing efforts to their customers.

Table C-4. Peer Utility Overview

Utility	Territory	Third-Party Implementer	Stand Alone Program	Direct Install Component?	Anything else?
A	Suburban/Rural Central, US	Yes	No	Yes	Commercial gas incentives fall within five groups, three of which are specific to water and space heating
B	Rural, Western, US	Yes	No	Yes	State going through some upcoming major energy legislation.
C	Rural, Central, US	Yes	No	Yes	Primarily custom calculated incentives
D	Urban/Suburban /Rural, Southwestern, US	Yes	No	Yes	State plays a big part in defining goals.
E	Urban/Suburban/Rural, Western, US	NA	No	Yes	Not interviewed
F	Urban/Suburban/Rural, Western, US	NA	Yes	NA	Not interviewed

All of the peer utilities interviewed reported to work with trade partners to market and install equipment. As shown in **Error! Reference source not found.**, Xcel Energy as well as three of the interviewed utilities tracked trade partner participation.

Table C-5. Trade Partner Participation Across Peer Utilities

Utility	Number of Trade Partners
Xcel Energy	74
Utility A	~30
Utility B	~ 10 – 20 (any commercial project)
Utility C	Does not enroll or track trade partners
Utility D	140 (any commercial project)

METHODS FOR ENGAGING TRADE PARTNERS

We asked interviewees about their practices around engaging trade partners in their heating efficiency offerings. This topic was important to Xcel Energy as it wanted to identify any new opportunities for engagement practices. The interviewees reported that outreach to trade partners were important to program participation and that some of their trade partners work with both commercial and residential sectors, similar to Xcel Energy.

The interviewees reported the following trade partner engagement practices:

- Utility A hosts a trade partner breakfast on their own and at union meetings where they update them on the program, rebate changes, and interesting new technology. They send out regular emails to update them in between the more formal meetings.
- Utility B has a large pool of trade partners, but most perform residential and commercial projects, almost none only perform commercial projects. They offer trade partners cobranded marketing materials. They also reimburse their trade partners for training. This utility also airs radio ads.
- Utility D has a large and engaged trade partner network, they used tools like highly targeted social media ads, with particular success on LinkedIn. They found direct mail to not be particularly helpful.

The utility interviewees reported not to engage with distributors specifically for heating equipment. However, two utilities reported the following:

- Utility A worked with the distributors to help them stay up-to-date on what measures qualify for the program in order to ensure distributors stock rebate-eligible equipment.
- Utility D started a midstream program for commercial kitchen equipment, but it was still in the pilot phase at the time of the interview.

METHODS FOR DRIVING CUSTOMER PARTICIPATION

We asked peer interviewees about customer outreach and marketing practices to identify any new opportunities for Xcel Energy to drive greater participation in the product. While each peer interviewee identified unique methods, they primarily relied on conducting in-person meetings with customers. They all reported to conduct cold calls or door-to-door recruiting. They also all prioritized locating large customers over the smaller customers for heating projects. Peer interviewees reported to use the following engagement practices with customers: providing case studies, conducting small direct install measures such as faucet aerators, advertising on Facebook and Pandora. Interviewees reported the biggest barriers to participation that customers face were lack of program knowledge and lack of funds to pursue energy efficiency projects.

- Utility A recently hired someone to help with outreach efforts full time. While they rely on trade partners to market the program to customers, they now also perform direct outreach to customers. Program staff walk a commercial zone and knock on doors to inform businesses of their program. When doing so, they will leave behind simple measures, which they report helped increase the number of follow-up calls from interested businesses. During these conversations, staff talk to customers about their needs, tell customers about the various programs, and provide showerheads, aerators, or spray valves for which the utility can claim savings. Through these conversations, they often heard that businesses did not know the programs existed, which helped justify that the door-to-door approach has been an effective way to reach businesses. They find that bringing a paper application so the potential customer can see it and not have to deal with the computer is very beneficial in their territory. They target customer types based off of what savings the utility needs to hit, and bring along direct install measures based on that. For example if they are targeting commercial kitchens, they will visit cafeterias and bring along a spray valve for a direct install measure.
- Utility B noted some trouble with stocking equipment in a rural territory. As a result, they reported to focus on air sealing and insulation projects, which were less reliant on equipment availability. They also added a bonus incentive if the project does two measures at the same time. Boilers are their most popular measure. This utility also made customer service a priority and goal of the program. Their most effective recruitment for new projects is to reach out to big energy users. They search by industry (senior living facilities, fruit processing plants, franchises, etc.) and try to work closely with the management teams to be in meetings they have about renovations or expansions. They try to be a part of all energy efficiency conversations with all the big businesses in the territory. Additionally, they developed case studies to help with advertising and have distribute mailers and hand-outs.
- Utility C was similar to Xcel Energy, in that many large businesses were not eligible for their energy efficiency programs due to rate structures. Given this constraint, this utility reviewed the list of eligible participants and focused outreach efforts to the largest businesses that are eligible to participate. Through this analysis, they found a number of casinos to be good candidates for their program and initiated cold calls to those facilities. During those conversations, they brought along direct install measures to achieve some savings and begin the dialogue about additional opportunities.
- Utility D targeted large customers like hotels, hospitals, government offices, and universities. They noted that the small businesses were not typically interested in investing in expensive new heating equipment because of either complex decision making processes due to rental/leasing arrangements or lack of funds. To support outreach efforts, they distributed flyers with case studies on them to businesses, they campaigned with large distributors, and provided cobranded social media campaigns. They offered an award for 'participant of the year' and advertised the customer on their

website. This award went to the customer with the largest savings from a project. They found that it helped advertising within an industry, for instance this year it was a hospital, so other hospitals saw that and want to do a project also. One utility noted that the direct install measures had really good results to get the customer to engage, "we set a goal of meeting with 2 businesses a week and the biggest thing we heard was 'we don't know [about the incentives].' It was all based on the one-on-one [interactions], you can do Facebook and Pandora but nothing tops a meeting in person." They also noted particular success with 'local franchises,' as in chains that were only located in their state, or the surrounding areas, more so than national chains.

APPLICATION PROCESSES

Three of the peer interviewees implemented a combination of prescriptive and custom programs for their heating rebates. The other interviewee (from Utility C) only provided custom heating incentives. Below were application guidelines defined by each of the peer utilities on their websites:

- Utility A: This utility provided a PDF application that needs to be mailed to the utility. To receive the rebate, customers must complete and submit the application. Included in the application, customers must also submit copies of receipts. For some incentives, customers must also submit manufacturers specifically sheets and/or dealer certification signature.⁷
- Utility B: This utility offered an online and PDF application. It offered a directory of qualified contractors for customers to use, however customers were not required to use a contractor from this directory. It requested an eight to twelve week period to process applications. To qualify for Utility B's commercial rebates, applicants must:⁸
 - Be on one of five rate schedules
 - Use natural gas as the primary heat source (not a back-up for an electric heat pump); or
 - Use natural gas as the primary water heat source
- Utility C provided an online application. Application requirements were as follows:⁹
 - Colorado Natural Gas account number
 - Details about the home such as year built, square footage, primary heating and cooling system types

⁷

https://www.blackhillsenergy.com/sites/blackhillsenergy.com/files/cog_commercial_prescriptive_rebate_app.pdf

⁸ <https://www.cngc.com/energy-efficiency/commercial-rebate-offerings/>

⁹ <https://survey.clicktools.com/app/survey/response.jsp>

- Details about the contractor(s) used for the project(s): Business name, contact information and address
- Details about installed measure(s) depending on the project, such as:
 - Installation date
 - Cost
 - Brand, model number, and efficiency for equipment/appliances
 - Furnace size in BTUs and fuel type
 - Type of new insulation, and pre-project and post-project insulation R-values
 - PDF file(s) of all applicable invoices, receipts, and equipment sizing documentation
- Utility D provided prescriptive and custom incentives for projects installed by a contractor. The website defined participation steps as the following:¹⁰
 - Verify that applicant is a customer.
 - Verify that equipment specifications are met.
 - Download and submit an application via mail or email.
 - Expect a rebate within six to eight weeks.

IMPLICATIONS OF LOW GAS PRICES

Xcel Energy wanted to better understand how other utilities adjusted their programs to account for low gas prices. The four utilities all had different responses to this question.

- Utility A reported a desire to focus more efforts on outreach in order to sustain participation levels. Additional outreach efforts included attending local meetings and fairs and running Facebook and Pandora advertisements.
- Utility B reported switching to the Utility Cost Test to help account for costs differently from the Total Resource Cost test.
- Utility C reported that low gas prices has not affected them so far, they have a lot of interest in their program and their main issue is getting contractors to come to their rural area.
- Utility D reported to cut their marketing budget in order to reduce administrative costs. They reported that 50% of their budget is now dedicated to rebates. They also reported that their UTC numbers were down from previous years even though the program did not go through any major changes.

¹⁰ <https://www.newmexicoefficiency.com/comsolprescriptive/steps.php>

MEASURES AND INCENTIVE VALUES

This section presents data on the heating measures and associated rebates offered at each peer utility. When examining these lists, the evaluation team found the following measures were offered by at least one other utility but were not currently offered within the Heating Efficiency product at Xcel Energy:

- Heaters:
 - Radiant heating
- Water Heater
 - Direct-contact gas water heater; $\geq 90\%$ thermal efficiency
 - Proper sizing support
- Alternative space/water heaters:
 - Combined space/water heater $>90\%$
 - Solar assisted water heater (pool)
 - Modulating gas infrared heating system
- Controls
 - Programmable thermostats
 - Smart thermostats
 - Demand control ventilation
 - Energy recovery ventilator
- Insulation
 - Attic, roof, wall insulation
 - Air sealing
- Other
 - Driveway snow melt system
 - Multiple measure bonus
 - Energy kits with pre-rinse spray valves, aerators, showerheads, weather strips
 - Commercial clothes washer
 - Commercial kitchen equipment
 - Gas dryer moisture sensor
 - Modulating gas dryer

The remainder of this section presents tables with the various heating measures and incentives offered by all of the peer utilities. When possible, it groups measure types together within a single table for comparison. It includes the following tables:

- Furnace incentives
- Water heater incentives
- Boiler incentives

- Alternative heating incentives
- Controls, thermostat, dampers, steam trap incentives
- Insulation incentives
- Commercial kitchens incentives
- Other incentives

Table C-6. Furnace Incentives

Utility	Measures	Incentives
Xcel Energy	N/A ^a	N/A
Utility A	Commercial Furnace \geq 94% AFUE	\$350
	Commercial Furnace \geq 96% AFUE	\$500
Utility B	Warm Air Furnaces, High Efficiency Condensing Furnace (Min 91% AFUE)	\$3.00/kBtu/hr
Utility C	Furnace (AFUE \geq 95%)	\$300
	Proper Sizing of Furnace	\$50
Utility D	Furnaces (up to 225 MBH, AFUE \geq 90%)	\$400
	Furnaces (up to 225 MBH, AFUE \geq 94%)	\$600
Utility E	>95% AFUE	\$300
	>95% AFUE with ECM	\$350
	>98% with ECM	\$400
Utility F	NA	NA

^a Xcel Energy removed furnaces from their approved measure list in July, 2019.

Table C-7. Water Heater Incentives

Utility	Measures		Incentives
Xcel Energy	Tankless or with storage		\$400/100,000 BTUh
Utility A	Condensing Water Heater $\geq 90\%$, TE ≥ 55 gallons		\$200
Utility B	Domestic Hot Water Condensing Tanks, Min 91% Thermal Eff		\$2.50/kBtu/hr
	Domestic Hot Water Tankless Water Heater (ENERGY STAR .82 EF)		\$60/gpm
Utility C	Water Heater (Tankless, UEF ≥ 0.82)		\$300
Utility D	SM Storage Water Heater	40–75 MBH, EF ≥ 0.80	\$500
	LG Storage Water Heater	75–300 MBH, Et $\geq 90\%$	\$500
		75–300 MBH, Et $\geq 95\%$	\$550
	SM Tankless Water Heater	50–200 MBH, EF ≥ 0.82	\$350
		50–200 MBH, EF ≥ 0.90	\$400
	LG Tankless Water Heater	200–300 MBH, Et $\geq 90\%$	\$800
		200–300 MBH, Et $\geq 94\%$	\$1000
	Storage gas water heater	Energy star certified	\$100
		>82% thermal efficiency	\$2/kBtu
Utility E	Condensing storage water heater		\$350
	Hybrid storage water heater		\$350
	Tankless water heater		\$2/kBtu
	Direct-Contact Gas Water Heater; $\geq 90\%$ Thermal Efficiency		\$1.10 / kBtu
Utility F	Commercial Tank Water Heater		\$3/kBtu/h input
	Commercial Tankless Water Heater/Boiler ≥ 200 kBtu/h		\$1/kBtu/h input
	Commercial Tankless Water Heater < 200 kBtu/h		\$300 each

Table C-8. Boiler Incentives

Utility	Measures		Incentives
Xcel Energy	Hot Water Boiler: 85% minimum efficiency		\$700 per million BTUh
	Hot Water Boiler: 92% minimum efficiency		\$3,000 per million BTUh
Utility A	N/A		N/A
Utility B	High Efficiency Condensing Boiler Min 90% Thermal Eff & 300 kBtu input		\$4.00/kBtu/hr
Utility C	Boiler: $85\% \leq \text{AFUE} < 95\%$		\$100
	Boiler: $\text{AFUE} \geq 95\%$		\$300
Utility D	Hot Water Boiler (up to 300 MBH, $\text{AFUE} \geq 85\%$)		\$125
	Condensing Boiler (up to 300 MBH, $\text{AFUE} \geq 92\%$)		\$600
Utility E	Hot Water Gas Boilers	$< 300,000 \text{ Btu/Hr Input}; \text{AFUE} \geq 85\%$	\$2.00 per kBtu/Hr Input
		$\geq 300,000 \text{ and } < 2.5 \text{ million Btu/Hr Input}; \text{TE} \geq 90\%$	\$3.25 per kBtu/Hr Input
		$\geq 2.5 \text{ million Btu/Hr Input}; \text{TE} \geq 90\%$	\$3.25 per kBtu/Hr Input
	Steam Gas Boilers	$< 300,000 \text{ Btu/hr}$ $\geq 85\% \text{ AFUE}$	\$2.00 / kBtu
		$\geq 300,000 \text{ Btu/Hr Input (except natural draft)}$ $\text{TE} \geq 82\%$	\$2.00 / kBtu
		$\geq 300,000 \text{ Btu/hr}; \geq 80\% \text{ Thermal Efficiency}$	\$2.00 / kBtu
	Commercial Hot Water Condensing Boilers		\$8-10/kBtu/h input

Table C-9. Alternative Space/Water Heating Incentives

Utility	Measures	Incentives
Xcel Energy	Non-Condensing Unit Heater: 83% minimum efficiency	\$50 per 100,000 BTUh
	Condensing Unit Heater: 90% minimum efficiency	\$150 per 100,000 BTUh
	Infrared Heater, 90% minimum efficiency	\$250 per 100,000 BTUh
Utility A	Infrared Heating System $\geq 92\%$ TE	\$350
Utility B	HVAC Unit Heater: High Efficiency Non-Condensing Min—86% AFUE	\$1.50/kBtu/hr
	HVAC Unit Heater: High Efficiency Condensing Min—92% AFUE	\$3.00/kBtu/hr
	Radiant Heating: Direct fired radiant heating	\$10.00/kBtu/hr
Utility C	N/A	N/A
Utility D	N/A	N/A
Utility E	Combined space/water heater $>90\%$	\$450
	Solar Assisted Water Heater (pool)	\$750
	Unit Heater Condensing $\geq 90\%$ Thermal Efficiency	\$6.00 / kBtu
	Unit Heater Non-condensing, Thermal Efficiency $\geq 83\% - \leq 90\%$	\$1.25 / kBtu
	Infrared-Heating System	\$5.00 / kBtu
	Modulating Gas Infrared Heating System	\$7.50 per kBtu/Hr Input
	Modulating Gas Infrared Heating System	\$2.00 per kBtu/Hr Input
	Condensing Indirect Fired RTU (rooftop unit); TE $\geq 90\%$; $\geq 50,000$ Btu/Hr Input	\$5.00 per kBtu/Hr Input

Table C-10. Control, Thermostat, Damper, & Steam Trap Incentives

Utility	Measures	Incentives
Xcel Energy	Electronically Commuted Motor (ECM)	\$100 per motor
	Modular burner controls	\$750 per million BTUh; \$2,000 maximum
	Outdoor air reset controls	\$250 per million BTUh
	Stack dampers	\$250 per million BTUh
	Steam trap replacements	25% of trap cost up to \$250 per trap maximum
Utility A	Setback Thermostat Programmable thermostats 5-1-1, 5-2 or 7-day (Self-installed)	Up to \$100
	Setback Thermostat Programmable thermostats 5-1-1, 5-2 or 7-day (Professionally installed)	Up to \$150
Utility B	Boiler Vent Damper	\$1,000 Min 1,000 kBtu input
	Demand Control Ventilation	\$20/nominal ton 5 tons ≤ Unit Cooling Capacity ≤ 20 tons
	Boiler Steam Trap: steam pressure at 7psig or > (Retrofit Only)	\$125 Min 300 kBtu in
Utility C	Smart thermostat	\$50
Utility D	N/A	N/A
Utility E	Gas Boiler Outside-Air Reset Control	\$250
	Gas Boiler Tune-up	\$100 per unit (additional \$ for efficiency improvements)
	Demand Control Ventilation (DCV) Tier 1	\$400
	Demand Control Ventilation (DCV) Tier 2	\$0.05 per AHU/RTU/MAU design supply CFM up to 50% of DCV controls and sensor cost
	Energy Recovery Ventilator	\$100 per unit
	Smart Thermostat	\$0.07/sq.ft. up to 50% of the Thermostat cost. Max \$100 per unit
Utility F	Modulating Boiler Burner	\$2/kBtu/h input

Table C-11. Insulation Incentives

Utility	Measures	Incentives
Xcel Energy	Pipe Insulation, based on pipe diameter and average fluid temperature	\$5 - \$9 per linear foot
Utility A	Boiler Pipe Insulation < 300 kBTuh; R-9 or greater	\$300
Utility B	Attic Insulation (retrofit only)	Tier 1: Min R-30 - \$1.10/sq ft Tier 2: Min R-45 - \$1.25/sq ft
	Roof Insulation (retrofit only)	Tier 1: Min R-21 - \$1.35/sq ft Tier 2: Min R-30 - \$1.60/sq ft
	Wall Insulation (retrofit only)	Tier 1: Min R-11 - \$1.10/sq ft Tier 2: Min R-19 - \$1.25/sq ft
	Hot Fluid Pipe Insulation (retrofit only)	>140F
	Air Sealing	30% of cost, up to \$300
	Attic Insulation (requires R-11 maximum pre R-value, insulation must be brought up to R-49)	30% of cost, up to \$300
Utility C	Wall Insulation (must be brought up to R-11)	30% of cost, up to \$300
	Crawlspace/Basement Perimeter Insulation (must be brought up to R-19)	30% of cost, up to \$300
	Floor Insulation (must be brought up to R-35)	30% of cost, up to \$300
	N/A	N/A
Utility E	Pipe Insulation (Hot Water)	\$1.50 per sq. ft.
	Pipe Insulation (Steam)	\$4.00 per sq. ft.
	Increased Attic Insulation (R-10 or greater)	\$0.08 / sq. ft.
	Wall Insulation (R-10 or greater)	\$0.12 / sq. ft.
Utility F	N/A	N/A

Table C-12. Commercial Kitchen Equipment Incentives

Utility	Measures	Incentives
Xcel Energy	N/A	N/A
Utility A	Char-Broiler (infrared) $\geq 38\%$ EF	\$1,100
	Convection Oven ENERGY STAR qualified and 46% efficient	\$200
	Conveyor Oven $\geq 42\%$ efficiency with thermostatic controls	\$900
	Demand Controlled Kitchen Ventilation - DCKV Intellihood (a brand of DCKV)	\$8,250
	Fryer ENERGY STAR qualified and 50% efficient	\$350
	Griddle ENERGY STAR qualified and 38% efficient	\$200
	High-Efficiency Combination Oven ENERGY STAR qualified (56% convection mode; 41% steam mode)	\$400
	High Efficiency Upright Broiler $\geq 37\%$ efficient	\$800
	Low-Flow Faucet Aerators 1.5 GPM or less	\$1 (incentive equal to measure cost)
	Low-Flow Pre-rinse Spray Valve 1.0 GPM or less	\$54 (incentive equal to measure cost)
	Rotating Rack Oven $\geq 50\%$ EF	\$1,500
	Salamander Broiler (infrared) $\geq 35\%$ EF	\$500
	Steam Cooker Above ENERGY STAR qualified (43% efficient)	\$400
	Connectionless 6 Pan Gas Steamer - ENERGY STAR® or CEE/FSTC Qualified $\geq 38\%$ Cooking Eff / $\leq 2,083$ Btu/hr/pan Idle Rate	\$1,200
Utility B	Gas Griddle - ENERGY STAR $\geq 38\%$ Cooking Eff/ ≤ 2650 Btu/hr sq ft Idle Rate	\$500
	Multi-Tank Conveyor Low Temp Dishwasher ³ - Gas Main w/Electric Booster ENERGY STAR ≤ 2.0 kw Idle Rate; ≤ 0.50 gallons/rack	\$2,500
	Connectionless 3 Pan Gas Steamer - ENERGY STAR® or CEE/FSTC Qualified $\geq 38\%$ Cooking Eff / $\leq 2,083$ Btu/hr/pan Idle Rate	\$850
	Gas Convection Oven - ENERGY STAR $\geq 42\%$ Cooking Eff/ $\leq 13,000$ Btu/hr Idle Rate	\$800
	Gas Conveyor Oven - $\geq 42\%$ tested baking efficiency	\$450
	Double Rack Oven - FSTC Qualified $\geq 50\%$ Cooking Eff/ $\leq 3,500$ Btu/hr/Idle Rate D Rack	\$2,500
	ENERGY STAR Gas Fryer	\$750
	Door Type Dishwasher Low Temp Gas ³ - ENERGY STAR ≤ 6 kw Idle Rate/ ≤ 1.18 gallon/rack	\$800

Table C-13. Commercial Kitchen Equipment (cont.)

Utility	Measures	Incentives
Utility C	N/A	N/A
Utility D	ENERGY STAR Gas Griddle	\$300
	ENERGY STAR Gas Fryer	\$600
	Gas Steam Cooker 3 pan	\$1,200
	Gas Steam Cooker 4 pan	\$1,400
	Gas Steam Cooker 5 pan	\$1,500
	Gas Steam Cooker 6 pan	\$1,600
	Low Temp Under Counter Dishwasher	\$100
	Low Temp Door Type Dishwasher	\$500
	Low Temp Single Tank Dishwasher	\$500
	Low Temp Multi Tank Conveyor Dishwasher	\$700
	High Temp Door Type Dishwasher	\$250
	High Temp Single Tank Dishwasher	\$150
	High Temp Multi Tank Conveyor Dishwasher	\$500
	Gas Convection Oven	\$300
	Gas Combination Oven	\$800
	Gas Conveyor Oven > 25 Inch	\$1,500
	Rack Oven	\$2,000 per rack
Utility E	High Efficiency Pre-Rinse	Direct Install
	Spray Valve	Direct Install
	ENERGY STAR® Gas Commercial Fryer	\$500 per vat
	ENERGY STAR Gas Steam Cooker	\$1,000 per unit
	High Efficiency Gas Convection Oven	\$500 per cavity
	High Efficiency Gas Combination Oven	\$1,000 per unit
	High-Efficiency Gas Griddle	\$300 per unit
	High-Efficiency Charbroiler, Infrared Only	\$1,000 per unit
	Conveyor Oven	\$1,000.00
	Used Charbroiler	\$500 per unit
	Used Combination Oven	\$500 per unit
	Used Commercial Fryer	\$250 per vat
	Used Convection Oven	\$250 per cavity
	Used Conveyor Oven	\$500 per cavity
	Used Steam Cooker	\$500 per unit

APPENDICES

Table C-1. Other Measure Incentives

Utility	Measures	Incentives
Xcel Energy	NA	NA
Utility A	Driveway Snow Melt System 95% AFUE	\$1,200
	Energy Savings Kits include: Kitchen Pre Rinse Spray Valve & Bath Aerators B: Low Flow Showerhead	Free
	Bundle and save	Two insulation measures, min. 1000 sqft +\$500
		Two Kitchen Equipment +\$150
		Three Kitchen Equipment +\$300
Utility C	Energy Savings Kits include: Kitchen Pre Rinse Spray Valve & Aerators, Low Flow Showerhead, Door weather strip	Free
Utility D	Commercial Clothes Washer (CEE Tier 1 or ENERGY STAR)	\$100
Utility E	ENERGY STAR High-Efficiency Clothes Washer	\$75
	Gas Dryer Moisture Sensor	\$25
	Modulating Gas Dryer	\$75

Heating Efficiency Evaluation

2019 Program Evaluation: Recommendations and Responses

The Xcel Energy Heating Efficiency product in Colorado provides rebates for business customers who purchase high-efficiency natural gas or dual-fuel commercial equipment for space heating, water heating or process heating loads. Available rebates are designed to promote the installation of high-efficiency equipment that improves combustion and seasonal efficiency above standard levels for both natural gas and electricity.

Xcel Energy (The Company) engaged a team of researchers led by EMI Consulting to conduct a process evaluation of the Heating Efficiency product. The evaluation team was asked to assess the following:

- Analyze customer and trade partner satisfaction with the product;
- Analyze customer and trade partner experiences with the product, including barriers to participation;
- Identify opportunities to improve the application process;
- Identify opportunities for greater engagement with the product; and
- Identify opportunities to expand the product into new markets.

Based on the results of this research, the evaluation team developed key findings and recommendations for Xcel Energy.

Recommendation	Response
1) Increase marketing and direct engagement with trade partners who participated more than once. Reach out directly, via telephone or email, to trade partners that have participated more than once in the Heating Efficiency Product. This will provide Xcel Energy with two benefits. First, these trade partners are good candidates for becoming even more active if they have more familiarity with the product, and highly active trade partners are valuable because Xcel Energy can rely on them to market the product to their customers and submit flawless applications that are easy to process. Second, a pool of active trade partners can provide Xcel Energy with a resource to better understand trade partner needs and questions. Xcel Energy could then rely on their feedback to better support outreach to other trade partners.	The Company agrees to increase marketing and engagement activities with trade partners.
2) Assign staff to maintain and track trade partner email information to ensure email addresses are up-to date (for both administrative and field staff). Currently, Xcel Energy requests trade partners to contact Xcel Energy if their contact information changes. However, the evaluation team found that trade partner emails were out of date and one trade partner mentioned that Xcel Energy emails were being sent to the wrong person at their	The Company agrees to evaluate methods to improve trade partner email address collection.

<p>organization. Most trade partners noted that email was their preferred method of communication with Xcel Energy. Maintaining up-to-date contact lists will support Xcel Energy efforts to better engage trade partners as part of their overall customer engagement strategy.</p>	
<p>3) Increase trade partner engagement by supporting trainings to increase product and equipment awareness. Supporting trade partners trainings could increase the number of trade partners competent to install high-efficiency equipment and provide another avenue to market the product to trade partners. Support could come in the form of providing food or space for training events. Xcel Energy could also offer to speak at training events about the product's offerings. Supporting training events can help mitigate the barrier customer's faced in finding contractors qualified to install high-efficiency equipment.</p>	<p>The Company agrees to provide additional product and equipment awareness to trade partners.</p>
<p>4) To prevent miscommunications, increase training for Xcel Energy sales staff, focusing on those who support smaller commercial and industrial customers, on product requirements and eligibility. Ensure that sales staff are equipped to remain a resource for customers and are fully knowledgeable about aspects of the product in order to avoid miscommunications that could lower confidence in and satisfaction with staff.</p>	<p>The Company agrees to provide additional product knowledge training to Xcel Energy account managers.</p>
<p>5) Improve data management practices relating to documentation of early project stages in Salesforce. To address the challenge that product managers face in forecasting energy savings, Xcel Energy staff need to identify protocols and practices that can help streamline early documentation of projects to facilitate energy savings forecasting. This recommendation would need to be implemented at the portfolio-level as it impacts data entry practices for all types of energy efficiency projects. As a first step to improving practices, the sales and product teams could meet to develop an agreement on how to address the challenges identified through this research, as well as others challenges that might exist. Below is a list of current needs:</p> <ul style="list-style-type: none"> • Determine means to adjust goal structure so staff do not feel that entering early 	<p>The Company agrees to evaluate and make recommendations to improve Salesforce stage management.</p>

<p>stage data on projects is too risky.</p> <ul style="list-style-type: none"> • Identify (or clarify) criteria for when projects and energy savings should be entered into Salesforce. • Determine a method for how to make data entry/data management less of a burden on sales team. • Provide guidance for typical energy savings for common projects. 	
<p>6) Provide training to customers and trade partners on how to use the online application form. Increased training will provide customers and trade partners with a greater understanding of how to complete the forms, and therefore could encourage more customers and trade partners to use the online form. This recommendation also would need to be implemented at the portfolio-level as it supports use of the online application form across all products. Training could include:</p> <ul style="list-style-type: none"> • An online link to a video demonstration. • In-person demonstrations of the online application at events and/or through one-on-one conversations with trade partners and customers who participate frequently. 	<p>The Company agrees to improve online application training through instructional videos or webinars.</p>
<p>7) Examine opportunities to improve the online application process to make it easier to complete and manage applications, including the ability to complete applications overtime. The ability to complete applications overtime such as assigning certain sections to certain people and/or including a save button, would allow users to complete applications on their own time and rely on their typical business practices and/or expertise. This would allow more customers and trade partners to use the online form. Similar to Recommendation 5a, this recommendation would need to be implemented at the portfolio-level.</p>	<p>The Company agrees to evaluate the current online application and make improvements as deemed reasonable.</p>
<p>8) Adjust the incentive structure to encourage more customers to install mid-level efficiency boilers, instead of lower-level efficiency boilers. To encourage more installations of the mid-efficiency units, and face concerns that the high-efficiency boilers do not generate sufficient energy savings to justify the higher costs to customers, the evaluation team recommends examining the rebate structure to allocate more of the rebate budget on the 85%</p>	<p>The Company agrees to evaluate the existing rebate structure for energy efficiency measures to improve adoption by customers.</p>

<p>efficient boilers. By adjusting the incentive structure to support more customers who would not install an efficient boiler to install the 85% efficient boiler, Xcel Energy could expect greater participation.</p>	
<p>9) Increase opportunities to influence customers when they are deciding which equipment model to purchase. Ideas could include:</p> <ul style="list-style-type: none"> • Increase trade partner awareness of product. Since half of participating customers relied on their trade partner to help choose the equipment, increasing trade partner awareness of the product would help give trade partners the information they need to help inform their customers about the rebate-eligible models during their sales process. To do this, see Recommendations 1a, 1b, and 2a. • Increase the web presence of Xcel Energy rebates on search engines. Since the other half of the participating customer interviewees reported conducting research on their own about which model to select, Xcel Energy should consider opportunities to increase its web presence on search engines, including paying for online advertising when customers search for heating equipment models. While the Heating Efficiency Product does not have marketing budget to spend on online advertising, this recommendation is something Xcel Energy could consider performing at the portfolio level. 	<p>The Company agrees to improve existing marketing materials so account managers can help influence customer decisions regarding higher efficiency options.</p>
<p>10) Assess feasibility of including additional measures offered by the product. Examine the measures offered by peer utilities to determine if any measures could be applicable to the Heating Efficiency Product (see Section 2.8 for list of measures). Increasing the number of measures rebated can support greater participation and opportunities to meet gas savings goals.</p>	<p>The Company agrees to continue looking at new technologies to include in the product.</p>