XCEL ENERGY

CO Motor & Drive Efficiency Product Impact & Process Evaluation

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Introduction

Xcel Energy contracted with EMI Consulting to evaluate the 2018 Motor & Drive Efficiency Product in Colorado. The product offers prescriptive and custom rebates to Xcel Energy commercial and industrial (C&I) customers who install qualifying motor and drive equipment in existing or new buildings as a way to lower the upfront premium costs associated with energy-efficient motors and drives. The CO Motor & Drive Efficiency Product relies heavily on an active trade partner network, as well as active involvement from account managers, to sell motors and drives upgrades to their customers.

As part of the process evaluation, EMI Consulting assessed customer awareness of and satisfaction with the product, customer motivations and barriers to participation, and trade partner attitudes toward and experiences with the product. For the impact evaluation, EMI Consulting assessed the impact of the product on customer decision making. This summary includes the key findings and recommendations from our evaluation.

Methods

Participating Customer survey (n=60)

Near-Participant survey (n=18)

Trade Partner interviews (n=14)

Fielding:
June – July 2019

Summary of Findings

The evaluation team estimated a retrospective **NTGR of 0.81 for kWh** and **0.83 for kW** for product, based on participating customer and trade partner responses. The team recommends the same prospective NTGR.

Participating customers reported **high satisfaction with trade partners,** and that **Xcel Energy marketing and tools were influential in their decision** to participate in the product. Application paperwork was rated as the largest product-related barrier.

Trade partners reported **high satisfaction with the trade partner manager,** most commonly rating this relationship as one of their most important product features.

Account managers and the Business Solutions Center play an important role in educating customers about the product, but they sometimes help with rebates retroactively, thereby making customers almost full free-riders.

All near-participant survey respondents who reported they had participated in the product **had Salesforce records of completed projects** closely resembling those projects marked as "lost."

Net-to-Gross Estimation

8.3 out of 10

Rebate's influence on customer's decision to install a qualifying motor or drive measure, where 0 was Not at All Influential and 10 was Extremely Influential.

The dollar amount of the rebate was rated as the **most influential product element.**

5.4 out of 10

Likelihood customers would have installed exactly the same equipment without the incentive, information, and support from the Xcel Energy Motor & Drive Efficiency Product, where 0 is Not at All Likely and 10 is Extremely Likely.

51% of respondents received a Timing Adjustment for installing equipment one year or more later than when they actually installed it. After applying the adjustment, we adjusted the No-Program Score, **decreasing overall free-ridership by 17%.**

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Awareness, Barriers, & Satisfaction

AWARENESS

Nearly one quarter (23%) of participating customers reported that their awareness of equipment came directly from Xcel Energy efforts. The most common non-Xcel Energy source of awareness was prior knowledge or experience of motor and drive equipment (29%).

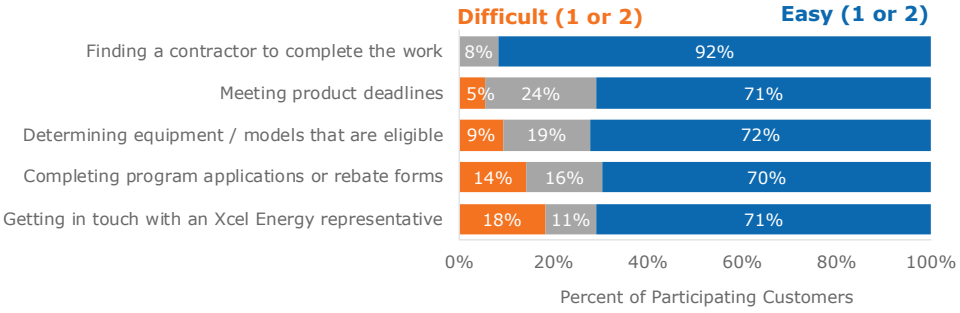
Both customers who completed the participant and near-participant survey **most commonly heard about the product from their Xcel Energy account manager.**

BARRIERS

Participating customers reported no significant barriers to participating in the product. Getting in touch with an Xcel Energy representative was rated most challenging, but only 18% reported difficulty related to this task.

Customers who completed the near participant survey reported that they **would not be motivated by either financing nor additional bonuses** to participate in the product.

Level of difficulty for the different elements of the product



SATISFACTION

92% of participating customers rated satisfaction with the product with the at a 4 or 5 out of 5.

15% of participating customers rated satisfaction with the amount of time to receive their rebate at 1 or 2 out of 5.

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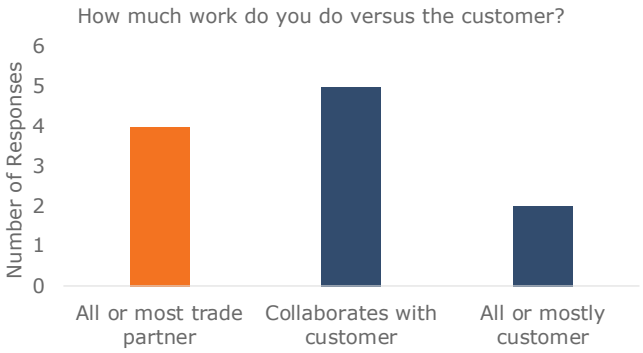
Trade Partner Experiences

Of the 11 trade partners asked about their process for completing rebate applications, **only four reported they always complete applications for their customers.** The remaining seven either worked with their customers (5) or left customers to complete the application on their own (2).

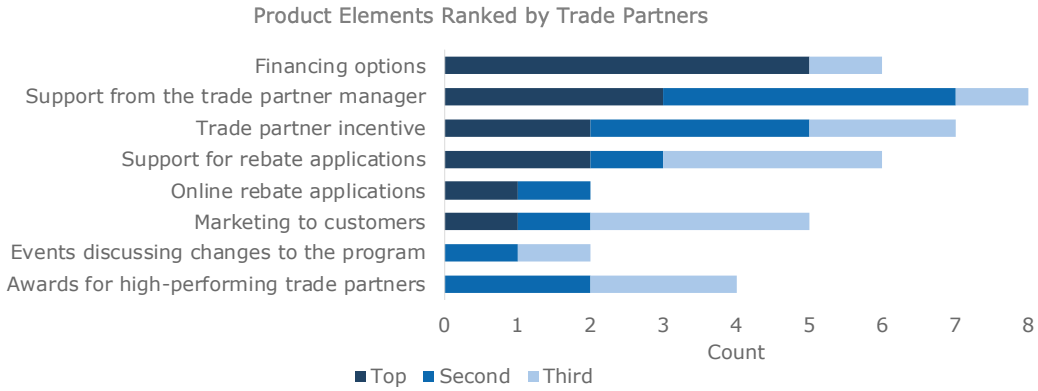


7 of 14 trade partners reported they use the product website. Similarly, 7 of 14 trade partners reported using the online application.

The seven trade partners who reported they never complete paperwork for their customers are the same seven **who have never used the online application**.

Though no trade partners reported they had used the new financing options available through the product, **financing was most commonly cited as the most important product element.**

Support from the trade partner manager was rated as the overall most important product element.



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Conclusions & Recommendations

The product shows strong influence. Retrospective net- to-gross ratios are:
0.81 for kWh,0.83 for kW.

Given the known changes to the product in 2019 and 2020 (water well pump VFDs and reduction of motor incentives), the evaluation team recommends using the retrospective NTGR of 0.81 for kWh and 0.83 for kW for the prospective NTGR. Neither change warrants a change to the prospective NTGR ratio because water well pumps will receive a separate NTGR and the product works primarily with drive equipment.

Participating customers reported high satisfaction with trade partners and marketing and tools from Xcel Energy were influential in their decision to participate in the product.

However, application paperwork was challenging.

Provide trade partners additional trainings in effective marketing and tools like the simple payback calculator and online application. This may increase customer satisfaction with the product and help trade partners complete paperwork more efficiently, better assist their customers, and sell more projects through the product.

Trade partners reported high satisfaction with the trade partner manager and more than one-third (37%) of participating customers reported that trade partners were influential in their decision to participate in the product.

As trade partners reported the trade partner manager position is useful, invest in resources increase trade manager outreach or other resources that would serve a similar function. This may help maintain contact with a wider range of trade partners and increase product participation.

Account managers and BSC representatives play an important role in educating participating customers about the product.

These same individuals sometimes help participating customers apply for rebates retroactively, thereby making those customers almost full free-riders and increasing overall free-ridership.

Continue to ensure that training is provided to account managers and BSC representatives to mitigate free-ridership. To curb free-ridership ratios, reiterate the importance of applying for rebates retroactively *only if* the project has been carried out in conjunction with Xcel Energy from the beginning.

All near-participant survey respondents who reported they had participated in the product had Salesforce participation records similar to the projects marked as "lost."

To prevent projects from closing automatically, ensure that transitions between account representatives are smooth and complete. This will help ensure continuity of project data and that Xcel Energy staff have an accurate overview of how many projects have been won and lost each cycle.

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 Motor & Drive 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 the report.

1.1 PRODUCT OVERVIEW

The CO Motor & Drive Efficiency Product offers prescriptive and custom rebates to Xcel Energy commercial and industrial (C&I) customers who install qualifying motor and drive equipment in existing or new buildings. Rebates are offered to encourage C&I customers to purchase energy-efficient motors and drives by lowering the upfront premium costs associated with this equipment. In 2018, the Motor & Drive Efficiency Product claimed over 9.9 GWh in energy savings from rebates provided in Colorado (Table 1-1).

Table 1-1. CO Motor & Drive Efficiency Savings by Measure, January – November 2018

Measure	Units		kWh	
	Quantity	% of total	Quantity	% of total
Variable Frequency Drive	279	95%	9,783,341	98%
Water Well Pump VFDs	6	2%	145,928	1%
CO – Custom Efficiency – Motors	1	< 1%	46,950	< 1%
Upgrade Motor Enhanced	6	2%	15,113	< 1%
New Motor Enhanced	1	< 1%	118	< 1%
Total	**293**	**100%**	**9,991,448**	**100%**

Note: This population of participating customers received rebates between January and November 2018. These numbers are based on aggregated data provided to EMI Consulting in April 2019.

[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).

The Motor & Drive Efficiency Product includes rebates for both energy-efficient motor equipment and for variable frequency drives (VFDs). The product offers rebates for four types of motors improvements: VFDs, enhanced new motors (i.e., installations of new motors that exceed U.S. Depart of Energy (DOE) standards), and enhanced upgrade motors (i.e., replacements of functional inefficient motors with motors that exceed DOE standards). Enhanced motors can include both induction motors and permanent magnet alternating current (PMAC) motors. Additionally, the product offers rebates for VFDs for HVAC and non-HVAC equipment and for water well pump VFDs.

The product is also considering several possible modifications for future cycles:

- As trade partners are a large driver of product savings, product staff want to explore the possibility of offering bonuses for trade partner participation.
- As delays on the customer-side of projects were a key driver in failing to meet the 2018 energy savings goal, product staff want to explore customer bonuses for projects that are completed within the program year.

The CO Motor & Drive Efficiency Product relies heavily on an active trade partner network, as well as active involvement from account managers, to sell motors and drives 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 channel managers to maintain these relationships.

1.2 EVALUATION OVERVIEW

The evaluation team designed a comprehensive evaluation of the Motor & Drive Efficiency Product to provide information on six key research topics:

- Product influence (net-to-gross ratio)
- Participating customer perceptions and awareness
- Barriers to participation for near-participants
- Satisfaction
- Product design
- Trade partner experience

Table 1-2 presents an overview of the research topics and data sources used in this evaluation of the CO Motor & Drive Efficiency Product.

Table 1-2. Overview of Research Topics

Primary Research Objectives	Participating Customer Survey (n=60)	Participating Customer Interviews (n=5)	Near-Participant Survey (n=18)[a]	Trade Partner Interviews (n=14)
Estimate a NTG ratio documenting the product's influence on customers' decisions.	X	X	X	X
Identify major drivers of free ridership.	X	X		
Assess market effects of the Motor & Drive Efficiency Product.				X
Understand customer and trade partner satisfaction and experience with the product and with Xcel Energy as an energy provider.	X		X	X
Assess customer and trade partner awareness and perceptions of motors and drives technologies.	X			X
Characterize key barriers in the customer decision-making process related to motor and drive purchases.			X	X
Assess trade partner experiences.				X
Assess trade partner interest in incentives.				X
Assess interest in additional customer incentives versus financing.			X	

[a] 13 of 18 near-participant survey respondents reported they had participated in the product. The evaluation team cross-checked and confirmed all 13 were participating customers for whom completed projects had been recorded as 'lost'.

1.3 REPORT ORGANIZATION

The following chapters organize the evaluation findings into two components: impact and process evaluation results. Further detail on the evaluation approach is presented in the following chapters. Chapter 2 reviews the approach and results of the net impact evaluation and the attribution of product impacts using a standard net-to-gross ratio (NTGR) analysis. Chapter 3 discusses the process evaluation components, including customer and trade partner awareness, motivators of and barriers to participation, product experience and satisfaction, and the potential for expanding the product through additional measures or delivery mechanisms. Conclusions and recommendations are presented in Chapter 4. Detailed, descriptive methodology information, evaluation plans, and survey instruments can be accessed in this report's appendices.

2. IMPACT FINDINGS

A central component of this evaluation was the estimation of the net-to-gross ratio (NTGR) for the Xcel Energy Motor & Drive Efficiency Product in Colorado. For demand-side management (DSM) products, the NTGR is a metric that estimates the influence of the product on the target market. It is used both as a benchmarking indicator of effectiveness and to adjust reported gross energy savings to account for energy efficiency that would occur in the absence of a program. NTGR results can indicate opportunities for Xcel Energy to adjust the design and implementation of its products to increase the cost-effectiveness of both individual products and the entire portfolio. The NTGR includes several factors that create differences between gross and net savings, such as free-ridership and spillover. The evaluation team estimated a retrospective NTGR based on data provided by customers and trade partners, and then recommended prospective NTGRs based on potential changes to the product's design. Note that a NTGR of 1.0 may not be desirable as eliminating all free-ridership may not feasible for a program operating at significant scale. In addition, a variety of factors including the maturity of the product and the technologies it promotes, product intervention strategies, and cross-product coordination strategies affect the desirable level of free-ridership. The evaluation team has taken care to present our NTGR results with this context in mind.

This chapter presents:

- **Key findings –** The key findings section presents the recommended NTGR based on the evaluation team's synthesis of findings from market actors.
- **Approach –** The approach section presents an overview of the evaluation team's methods to calculating the recommended NTGR.
- **Net-to-gross ratio inputs –** This section presents qualitative and quantitative data that support the NTGR calculations.

2.1 KEY IMPACT FINDINGS

This section presents key findings from the impact evaluation for the CO Motor & Drive Efficiency Product, including retrospective and prospective NTGR recommendations. The evaluation team estimated retrospective NTGRs based on the quantitative and qualitative results of the customer and trade partner research. Then, the team recommended a prospective NTGR based on potential changes to the product design, as presented in the following section.

RETROSPECTIVE NET-TO-GROSS RATIO

The evaluation team estimated a retrospective NTGR of 0.81 for kWh and 0.83 for kW for the Motor & Drive Efficiency Product, based on participating customer and trade partner responses. To estimate this NTGR, the evaluation team took the following steps:

- The evaluation team first estimated an overall free-ridership ratio of 0.21 (unweighted average) based on participating customer surveys and follow-

up interviews with customers to determine whether data obtained through the initial survey should be adjusted. The No-Program Score was the main driver of free-ridership and is detailed more in Section 2.3.

- These results were weighted to be representative of the population,[2] and adjusted to 0.24 for kWh and 0.22 for kW.
- The evaluation team estimated 2% spillover for both kWh and kW. Spillover came from four participating customers who installed 19 product-eligible measures without receiving a rebate, and who reported the product was influential in their decision to do so.
- The evaluation team included a 3% adder for market effects, as trade partner interviews indicated significant changes in the market for motor and drive equipment due to the product.
- To calculate the overall NTGR, the evaluation team subtracted the free-ridership ratio from 1, then added 2% to account for spillover, and an additional 3% for market effects. This brings the NTGR to 0.81 for kWh and 0.83 for kW. Detailed methodology for the NTGR calculation can be found in Section 2.2.

PROSPECTIVE NET-TO-GROSS RATIO

Xcel Energy product staff reported that they will add water well pump variable frequency drives (VFDs) to the product in PY2020 and that they decreased motor incentives in 2019. The evaluation team reviewed these changes and does not recommend changing the prospective NTGR. As is customary for programs in Colorado for a new measure, Xcel Energy will file clean water pumps with a separate net-to-gross and the measure is therefore excluded from this analysis. Because the number of motors PY2018 was so low, savings were not significant enough to change the overall prospective NTGR. As such, the evaluation team recommends a prospective NTGR of 0.81 for kWh and 0.83 for kW.

2.2 NET-TO-GROSS APPROACH

The evaluation team developed the NTGR for the CO Motor & Drive Efficiency Product using a self-report approach, based on participating customer survey results in combination with additional research data inputs. The methodology used in this evaluation was built from the Core Nonresidential Protocol in the *2016 Illinois Statewide Technical Reference Manual for Energy Efficiency Version 6.0*, in *Attachment A of Volume 4: Cross-Cutting Measures and Attachments* (hereafter referred to as the "Illinois TRM").

[2] The evaluation team applied two weights. First, the evaluation team determined a weighted average within each stratum (e.g., custom applications and prescriptive applications) based on project size, so that larger projects were weighted more heavily. Second, the evaluation team combined the two strata-level weighted averages to estimate a product-level weighted average, based on the proportion of savings each stratum contributes to the total savings for the product (i.e., prescriptive were weighted more heavily because they make up a greater portion of the product's savings.)

The data inputs to the NTGR analysis included:[3]

- **Participating customer surveys –** focused on project-level effects, including free-ridership and participant spillover.
- **Near-participant surveys –** focused on barriers to product participation as well as spillover.
- **Follow-up interviews with participating customers –** sought to clarify any conflicting information in the participating customer surveys and determine reasons significant outliers did not fit remaining data.
- **Trade partner interviews –** focused on determining overall market effects and whether influential trade partners were influenced by Xcel Energy.
- **Known product changes in upcoming years –** implications for planned changes in product design, including additional measures.

Sampling for both the participating customer and near-participant surveys was through a census approach, and the evaluation team attempted to reach a 90% level of confidence with a minimum of +/- 10% relative precision. The full population size for the near-participant survey was not large enough to reach this precision level, however.

For trade partner interviews, the evaluation team first contacted those trade partners that participating customers cited as being influential in their decision to purchase high efficiency equipment. For the remainder of the trade partner interviews, the evaluation team attempted to reach a balance between engaged and unengaged trade partners.

The evaluation team used self-reported data from participating customers to develop an initial NTGR. Data from the additional sources listed above were then used in constructing a logical narrative of product attribution, and in finalizing the prospective NTGR for the product.

FREE-RIDERSHIP

Free-ridership is a measure of the amount of a product's claimed savings that would have occurred in the absence of the product. Free-ridership is assessed on a scale from 0 to 1, where 1 indicates that the product had 100% free-ridership and all product savings would have occurred without any of the product's rebates or assistance.

To determine free-ridership, the evaluation team started with the Core Nonresidential Protocol from the Illinois TRM, and wrote specific questions to assess three free-ridership components:

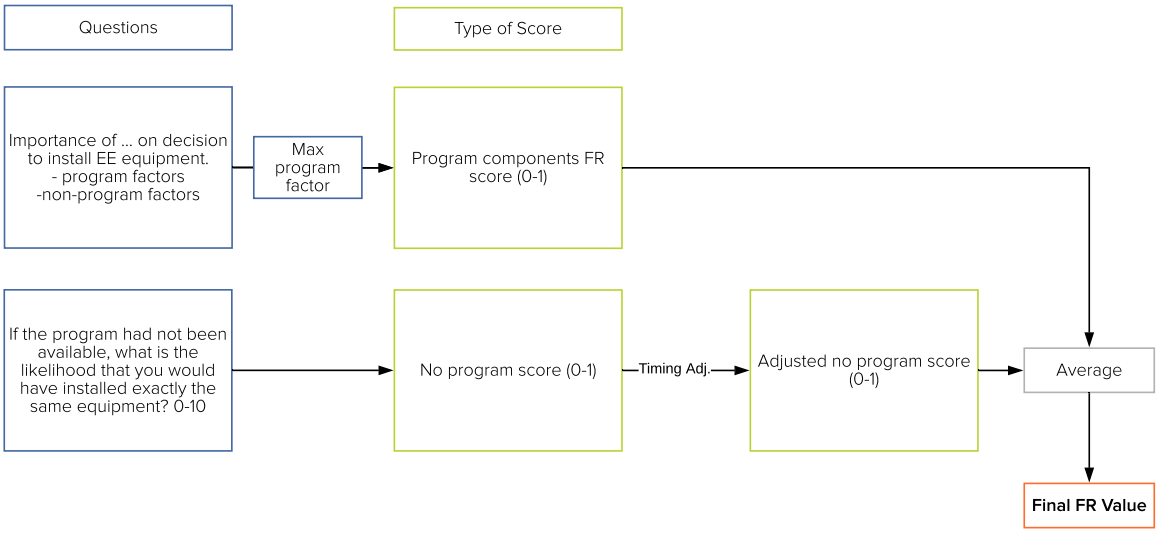
- A **Program Components Score**, based on the participating customer's perception of the importance of various product components in their decision to carry out the energy-efficient project

[3] Additional descriptive detail on these research activities appears in Chapter 3 and in the appendices.

- A **No-Program Score**, based on the participating customer's intention to carry out the energy-efficient project without product funds
- A **Timing Adjustment**, based on the participating customer's perception of when they would have carried out the project in the absence of the product.

When scored, these components assess the likelihood of free-ridership on a scale of 0 to 10, with the two scores averaged and the timing adjustment applied to create a final free-ridership ratio (Figure 2-1).

Figure 2-1. Free-Ridership Calculation Methodology



SPILLOVER

Spillover is a measure of the amount of energy savings that occur due to the product that are *not* captured in the product's claimed energy savings. For the purposes of this evaluation, both participant spillover and near-participant spillover was estimated, though no near-participant spillover was found.

To capture participant spillover, the evaluation team asked participating customers for information about any additional efficient equipment installed outside the product (for which they did not receive a rebate). It asked both about motor and drive equipment and about other equipment such as lighting. The surveys also probed for information on the importance of the Motor & Drive Efficiency Product in participating customer installation decisions and the likelihood that the measures would have been installed if they had not participated in the product. The evaluation team computed savings estimates for all identified spillover equipment and the product's spillover ratio was calculated by dividing the total spillover savings by the product's total energy savings.

DETERMINATION OF NET-TO-GROSS RATIO

The evaluation team estimated the CO Motor & Drive Efficiency Product's initial NTGR using the following formula:

$$Product\ NTGR = 1 - (Free - Ridership\ Ratio) + (Participant\ Spillover\ Ratio) + (Market\ Effects\ Adder)$$

Finally, the evaluation team utilized all the information collected about the product (through customer surveys and follow-up interviews, trade partner interviews, and known product changes) to construct a logical, internally consistent, and coherent narrative of product attribution that attempted to identify all possible pathways of Xcel Energy influence. In addition to free-ridership and participant spillover, the evaluation team also considered whether any adjustment was warranted due to changes the Colorado motor and drive market due to the Product. This adjustment is denoted above as the Market Effects Adder. Based on these results, it recommended a final summative NTGR that is consistent with this narrative.

2.3 NET-TO-GROSS RATIO INPUTS

As described in the approach section, the recommended NTGR is based on three primary data inputs: free-ridership, spillover, and market effects. This section explores each of these results in more detail, including qualitative data that support the results.

FREE-RIDERSHIP RESULTS

Free-ridership is a measure of the proportion of the product's claimed energy efficiency savings that would have occurred in the absence of the product. This section presents results related to the three metrics used to estimate final free-ridership values of 0.24 kWh and 0.22 kW. To estimate free-ridership, the evaluation team estimated three metrics:

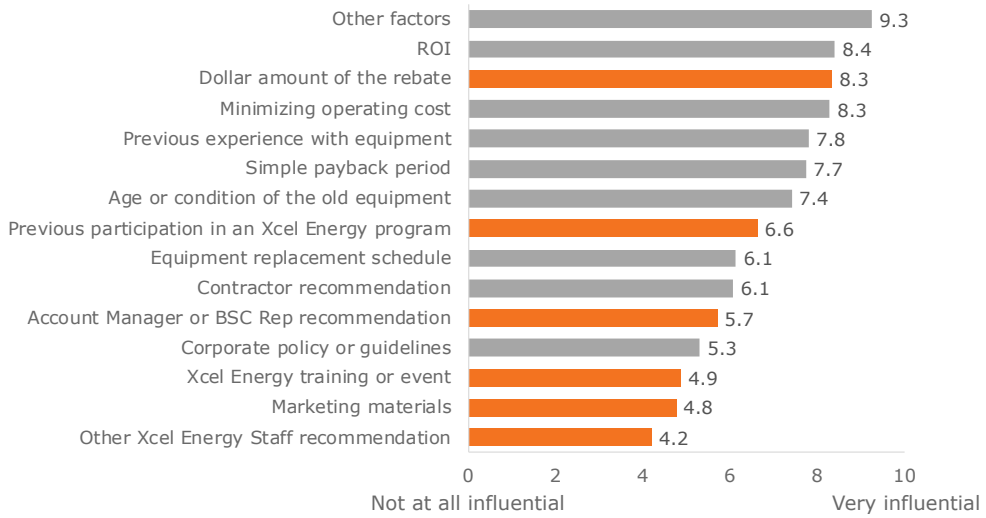
- A **Program Components Score**, based on the participating customer's perception of the importance of various product components in their decision to carry out the energy-efficient project;
- A **No-Program Score**, based on the participating customer's intention to carry out the energy-efficient project without product funds; and
- A **Timing Adjustment**, based on the participating customer's perception of when they would have carried out the project in the absence of the product.

PROGRAM COMPONENTS SCORE

To determine the program components score, the evaluation team asked participating customers to rate the influence of a variety of factors upon their decision to install motor and drive equipment. These factors each fall into one of three categories: automatic program factors, non-program factors, or non-automatic program factors.

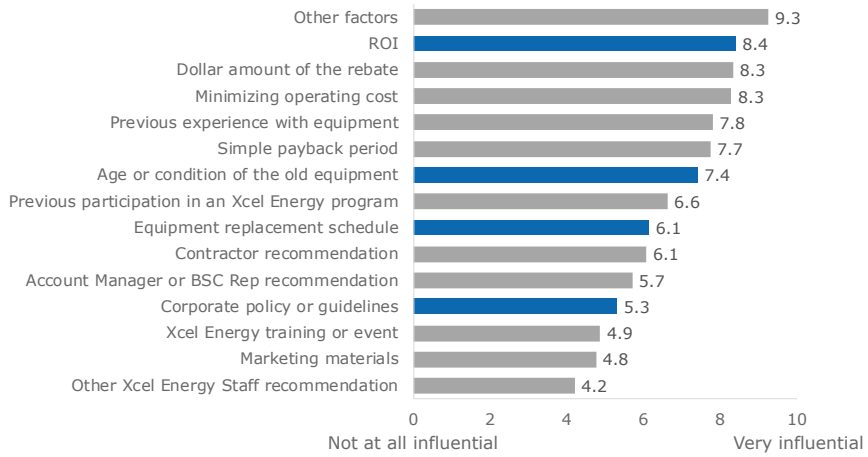
Automatic program factors, highlighted in orange in Figure 2-2, are factors that in all cases can be attributed to Xcel Energy and/or product influence, including (1) dollar amount of the rebate, (2) previous participation in an Xcel Energy product, (3) account manager or business service center representative recommendation, (4) Xcel Energy training or event, (5) Xcel Energy marketing materials, and (6) other Xcel Energy staff recommendations. Of these factors, participating customers rated the dollar amount of the rebate as the most influential factor, at an average of 8.3 out of 10. The next most influential factor, previous participation in an Xcel Energy product, was rated almost two points lower (score of 6.6 out of 10).

Figure 2-2. Automatic Program Factor Scores



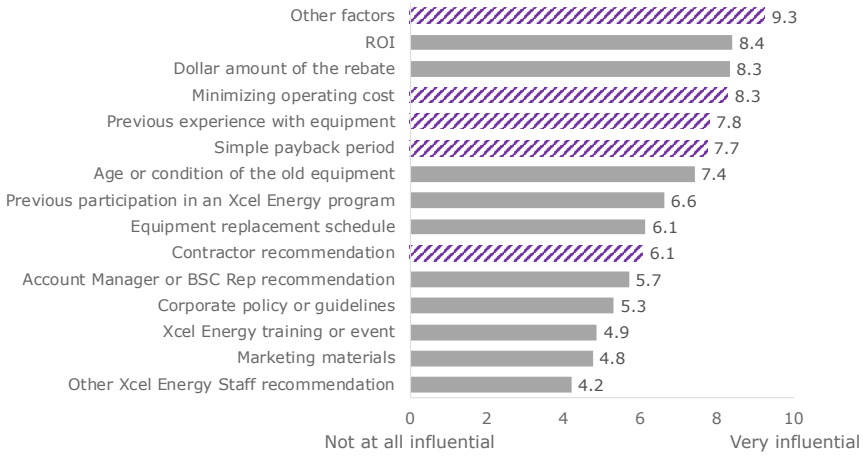
Non-program factors, highlighted in blue in Figure 2-3, are factors that may influence a customer to install motor or drive equipment, but that are not related to or affected by the product. The evaluation team asked participating customers to rate the following non-program factors: (1) return on investment (ROI), (2) age or condition of the old equipment, (3) the equipment replacement schedule, and (4) corporate policy or guidelines. Of these, the most influential factor was ROI (rated at 8.4 out of 10). While ROI is sometimes considered a program factor, the evaluation team did not ask follow-up questions to parse out whether Xcel Energy product staff provided ROI information to customers. The evaluation team was therefore unable to determine attribution to the product for this factor. The evaluation team plans to include follow-up questions on ROI in future evaluation efforts for Xcel Energy. Participating customers rated other non-program factors as less important than return on investment, with scores ranging from 7.4 (age or condition of the equipment) to 5.3 (corporate policy or guidelines).

Figure 2-3. Non-Program Factor Scores



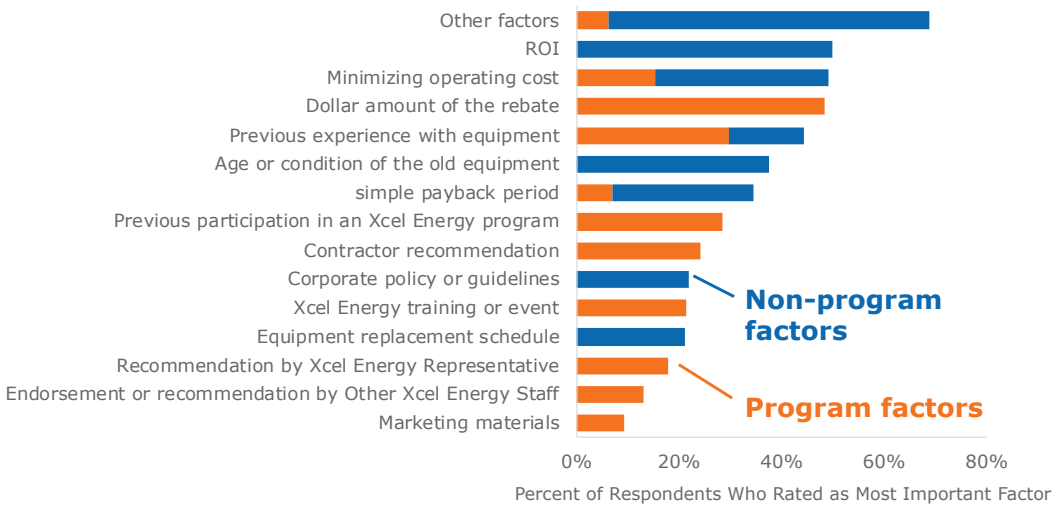
Finally, the evaluation team asked product participating customers to rate the influence of non-automatic program factors on their decision to install motor and drive equipment, highlighted in purple in Figure 2-4. These are factors that, depending on the specific situation, may be classified either as a program factor or as a non-program factor. Follow-ups during the survey and through interviews after the survey determined whether these factors were program factors or non-program factors. If survey respondents reported Xcel Energy played a role in these non-automatic program factors, the factor was included as a program factor for that participating customer. If Xcel Energy did not play a role in these factors, the factor was included as a non-program factor. Non-automatic program factors included (1) minimizing operating cost, (2) previous experience with equipment, (3) simple payback period, (4) contractor recommendation, and (5) other factors. Combined, "other factors" were rated as most influential at 9.3 out of 10, while minimizing operating cost (8.3), previous experience with equipment (7.8), and simple payback period (7.7) came in close behind as important specific factors.

Figure 2-4. Non-Automatic Program Factor Scores



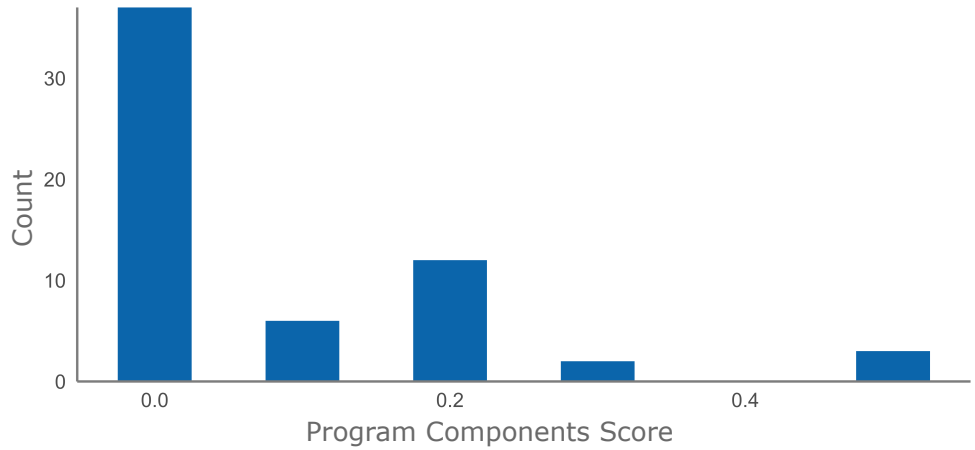
Overall, program components were split fairly evenly between non-program and program factors, though cost-related factors rose to the top for both factor types. Of the participating customers who provided a rating for an individual factor, participating customers reported that ROI, minimizing operating cost, and the dollar amount of the rebate were most influential overall, as seen in Figure 2-5. Participating customers reported some efforts such as marketing materials and endorsements from Xcel Energy staff members as least influential, though this influence may be under-reported in a retrospective survey effort, as respondents may not recall interactions or material they received from Xcel Energy prior to participating in the product.

Figure 2-5. Influential Program and Non-Program Factors



To determine the Program Component Score, the evaluation team took the program factor attributed the most influence from each participating customer, averaged this score, and re-scaled it to be between 0 and 1. The unweighted 2018 Motor & Drive Efficiency Product score is 0.09. Program components scores closer to 0 indicate the Product has a high level of influence. Distribution details for this score can be seen below in Figure 2-6, where the count of participating customers (y-axis) are binned by their program components score rounded to the nearest tenth (x-axis).

Figure 2-6. Program Components Score Distribution



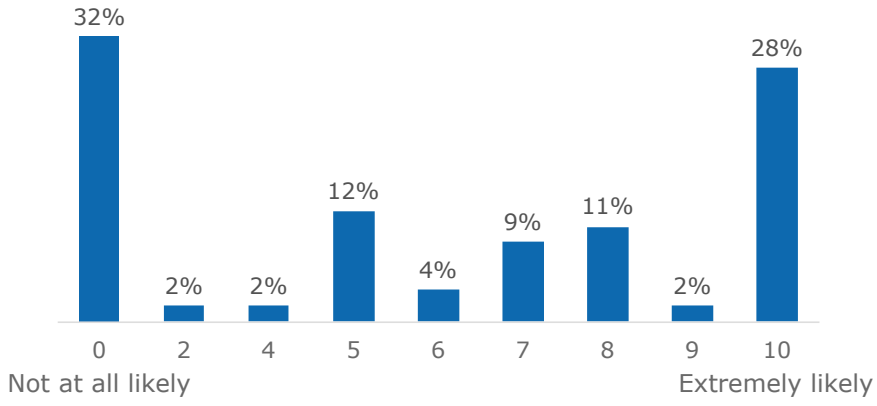
Because it does not ask about what would have happened in the absence of the Product, the Program Components Score typically underestimates free-ridership and is balanced by the No-Program Score, described in the following section.

No-Program Score

It is a measure of how likely customers are to have installed identical equipment without the influence of the product. In contrast to the Program Components Score, which asks how influential the product was on a customer's decision to install equipment, the No-Program Score asks whether that decision would have been different absent the product.

When asked the likelihood they would have installed exactly the same equipment without the incentive, information, and support from the Xcel Energy Motor & Drive Efficiency Product, customers reported an average score of 5.4 on a scale from 0 to 10, where 0 is Not at All Likely and 10 is Extremely Likely. As shown in Figure 2-7, these responses were anchored on either side of the scale, with 32% responding they were not at all likely to install the same equipment, and 28% reporting they were extremely likely to do so.

Figure 2-7. No-Program Score Distribution



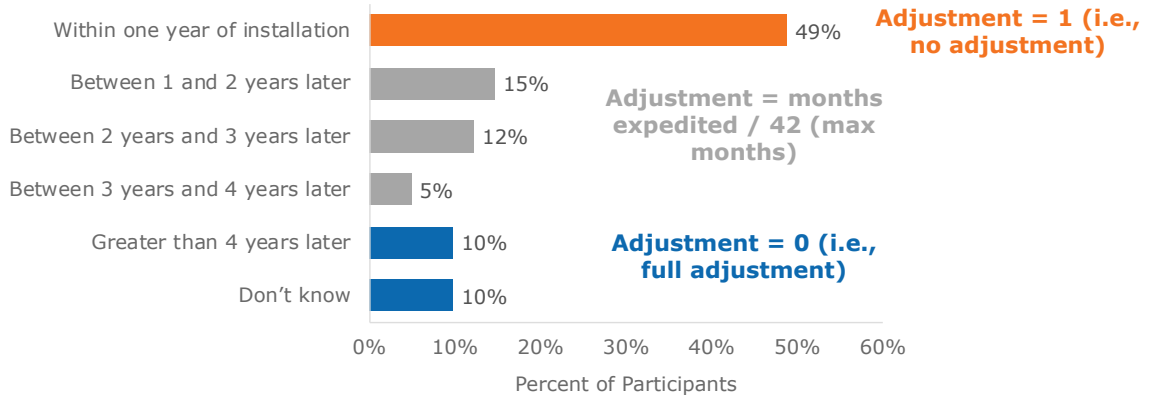
These scores brought the final unadjusted No-Program Score to 0.51. The Timing Adjustment, discussed in the next section, will influence this score.

Timing Adjustment

Unlike the Program Components Score and No-Program Score, which measure program influence on equipment installation overall, the Timing Adjustment measures whether the product influenced the timing of equipment installation, thereby increasing lifetime savings. To determine whether a timing adjustment should be attributed to a participating customer, the evaluation team asked respondents whether they installed their equipment earlier than they otherwise would have due to the product's influence. 48 of 60 respondents reported installing their equipment earlier because of the product. This is a driving factor behind the product's overall influence.

The evaluation team applied a timing adjustment to all participating customers who reported they would have installed the equipment one year or more later than when they actually installed it; in this case, to 51% of respondents. The degree of adjustment was determined by dividing the number of months installation was expedited by 3.5 years (42 months), the maximum number of months to reach a full adjustment. Figure 2-8 below shows the distribution of these responses.

Figure 2-8. Distribution of Applied Timing Adjustment



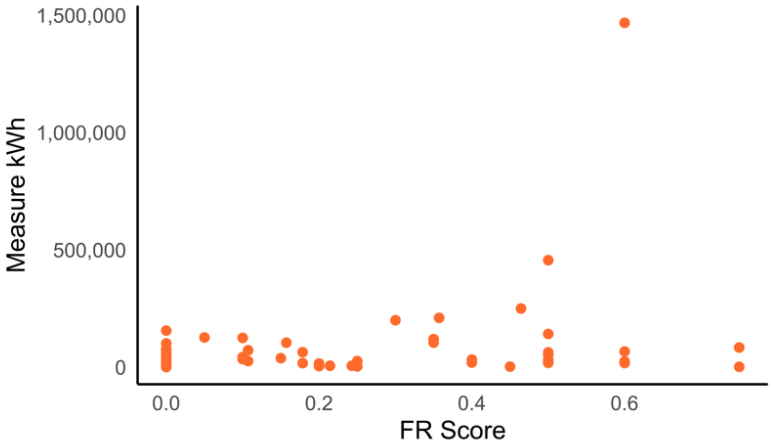
After applying the Timing Adjustment, the evaluation team adjusted the No-Program Score from 0.51 to 0.34. This 17% decrease in free-ridership from the unadjusted score highlights one of the strengths of the product: enabling participating customers to install equipment they are interested in installing significantly earlier than they otherwise would be able to. The following section discusses further adjustments to free-ridership ratios necessary to determine a final free-ridership ratio for the CO Motor & Drive Efficiency Product.

Free-Ridership Adjustments

After determining an initial free-ridership ratio, the evaluation team examined participating customer survey respondents by their estimated free-ridership ratio

and the energy savings in kWh of the measures discussed during the survey. This data, shown in Figure 2-9, revealed one participating customer to have significantly higher savings and a higher than average free-ridership ratio, as well as several other outliers. To determine why these participating customers fell outside the typical range, the evaluation team conducted five follow-up interviews, and adjusted free-ridership accordingly.

Figure 2-9. Unadjusted Free-Ridership Ratios by Measure Savings



While all other survey participating customers had completed prescriptive rebates, the participating customer with the highest savings and higher than average free-ridership completed a custom project and installed a turbo blower. During the initial survey effort, this customer had indicated Xcel Energy was not influential in their decision to follow through with this project, however the follow-up interview indicated that they had received an audit from Xcel Energy 2.5 years prior to project completion during which Xcel Energy had recommended installing a turbo-blower. As this customer then installed that measure after receiving the audit, the evaluation team decreased the free-ridership ratio by half.

The evaluation team adjusted two additional participating customer free-ridership ratio down as well: one because the survey respondent had completed an Xcel Energy energy audit at their previous company, and the other because of exposure to Xcel Energy rebates at their previous company. These experiences influenced these individuals to carry out Xcel Energy projects at their current companies, even though experiences with Xcel Energy were not at those companies.

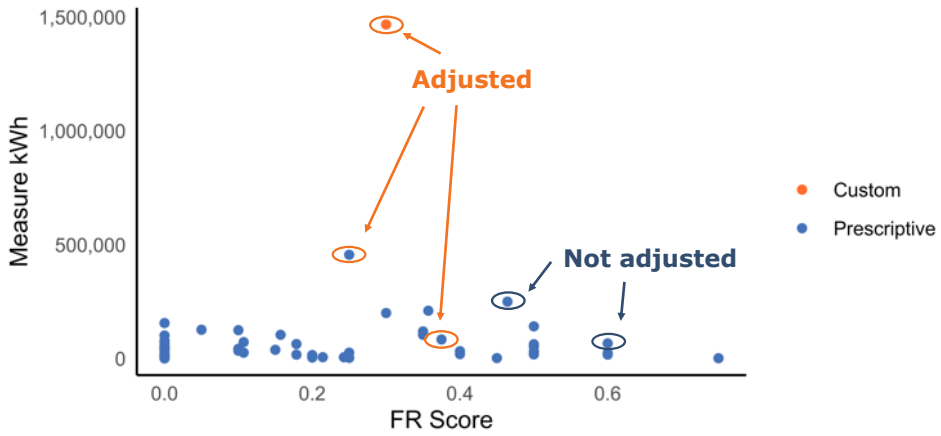
Free-ridership for the final two customers remained the same after interviews. One of these individuals was required to conduct an energy efficiency installation as part of a loan requirement and credited that requirement all of the influence for participating in the product. The other participated in the product retroactively:

> *"[We participated] retroactively because we had already done a project to install VFDs... It was after the fact that we heard about the Xcel Motors*

Efficiency and Drives [Product]. The representative from Xcel said, 'Hey, you know we have this program... if you get me all your paperwork, I can help rebate you the drive you already purchased.'"

While Xcel Energy does allow for retroactive participation, the intention behind this is to prevent bureaucratic delays for customers who intend on applying for rebates to install energy efficient measures. Figure 2-10 shows adjusted free-ridership ratios used to calculate the final free-ridership ratio, discussed in the following section. Interviewees for whom the ratio was adjusted are circled in orange, while those who are not adjusted are marked in blue.

Figure 2-10. Adjusted Free-Ridership



Final Free-Ridership

Finally, the evaluation team averaged the Program Components Score and the Adjusted No-Program Score and applied sampling weights to estimate free-ridership. With sampling weights applied, the free-ridership ratio was 0.24 kWh and 0.22 kW. This section discusses the weights applied to the initial scores of 0.25 kWh and 0.23 kW to reach these final values.

The evaluation team applied two different weights. First, within each stratum it weighted each score by the total savings for that measure in order to make that score representative of total savings. In this way, customers with larger projects are weighted more heavily, as they have more influence on total product savings. Second, across strata, the evaluation team weighted each strata's average free-ridership by the proportion of savings attributed to that strata in the product. This weighting ensured that prescriptive applications were weighted more heavily than custom applications, as prescriptive applications make up more of the product's total savings. The evaluation team did not exclude the outlier discussed in the Free-Ridership Adjustments section above because that outlier did not impact the overall free-ridership ratio. Additionally, though the product does offer both motor and drive equipment, weighting free-ridership results by equipment type did not impact

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free-ridership ratios. A summary of weighted free-ridership ratios is below in Table 2-1 and Table 2-2.

Table 2-1. Weighted kWh Free-Ridership Ratios

kWh NTGR	Average kWh free-ridership ratio	Population savings	Percent	Weighted kWh free-ridership ratio
Prescriptive	0.23	34,869,814	94%	0.23
Custom	0.30	2,273,212	6%	0.30
Total	**0.25**	**37,143,026**	**100%**	**0.24**

Table 2-2. Weighted kW Free-Ridership Ratios

kW NTGR	Average kW free-ridership ratio	Population savings	Percent	Weighted kW free-ridership ratio
Prescriptive	0.22	7,011	94%	0.22
Custom	0.30	424	6%	0.30
Total	**0.23**	**7,435**	**100%**	**0.22**

SPILLOVER RESULTS

Spillover is a measure of the amount of energy savings that occur due to the product that are *not* captured in the product's claimed energy savings. To be eligible for spillover, customers must have:

1. Installed additional efficient[4] motor or drive equipment or other energy efficiency equipment after participating in the product;
2. Not received rebates for this equipment (and not be in the process of applying for rebates); and
3. Been influenced to install this equipment by the Motor & Drive Efficiency Product.

Since participating in the product, 35 customers had installed additional equipment. Of these, 31 reported that the Xcel Energy Motor & Drive Product was not influential in their decision to install equipment, leaving four customers eligible for spillover. Between them, these four customers installed 19 product-eligible measures.

[4] Efficient motors and drives were defined as equipment that would qualify for rebates from the product.

To calculate spillover savings, the evaluation team multiplied average savings for each spillover-eligible measure by a spillover quotient. Then, to calculate the percentage of spillover, the evaluation team divided spillover savings for each measure category by the total project savings within the population. The values in Table 2-3 represent spillover-eligible kW and kWh savings.

Table 2-3. Participating Customer Spillover

	Spillover kW	Spillover kWh	Population kW	Population kWh	Spillover kW	Spillover kWh
Values	138	798,263	7,435	37,143,026	**0.02**	**0.02**

These spillover values are added to values discussed in the Free-Ridership section to give the product credit for savings achieved through installation of measures without receiving rebates.

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MARKET EFFECTS

In addition to free-ridership and spillover, the evaluation team added a 3% adder for market effects due to the influence of the Xcel Energy Motor & Drive Efficiency Product on the Colorado market. While this adder is not always relevant in impact evaluations, it is appropriate in cases where the product has had significant impact on the marketplace.

Product customers reported sustained engagement over the course of many years with the Xcel Energy CO Motor & Drive Efficiency Product. Though some of these respondents reported that the product had no influence on the kinds of equipment they install for their customers, their long-term engagement with the product indicates that the product has impacted their ability to install efficient motor and drive measures over time:

> *"It's such second nature to think about the rebate program, and it has been for 25 years." -Participant customer*

Additionally, trade partners reported that the product helped transform the motors and drives landscape in Colorado, and that they often use the product as a sales tool for higher quality and more efficient equipment than what their customers may otherwise install.

> *"I'm in a national industry group. There are lots of areas where people don't have these [rebates] and people can't get people to install these things without incentives." – Participating trade partner*

The evaluation team included a 3% market effects adder to account for the long-term effects the product has had on the kinds of measures installed, as reported by participating customers and trade partners. We determined that a 3% market

effects adder was consistent with other industry-standard estimates based on secondary research of market effects studies.

RETROSPECTIVE NET-TO-GROSS

Overall, the evaluation team found that the product significantly impacted participating customer decisions. Using the net-to-gross formula, we determined a kW NTGR of 0.83, and a kWh NTGR of 0.81. The generalized formula the evaluation team used to determine NTGRs is shown in Equation 1 below.

Equation 1. Generalized Net-to-Gross Ratio

$$NTGR = 1 - (Free\text{-}Ridership\ Ratio) + (Spillover\ Ratio) + (Market\ Effects\ Adder)$$

Using this formula, the kWh NTGR is shown in Equation 2. The kW NTGR is shown in Equation 3. The free-ridership ratio of 0.24 here is influenced by almost half (45%) of participating customers reporting they would have installed identical equipment if the product did not exist. Additionally, participating customers who participated in this survey effort reported that the dollar amount of the rebate was most influential in their decision to participate in the product. The market effects adder (0.03) in both kWh and kW reflects that the product has influenced how both participating customers and trade partners think about motor and drive measure installations.

Equation 2. kWh Net-to-Gross Ratio

$$kWh\ NTGR = 1 - (0.24) + (0.02) + (0.03) = 0.81$$

Equation 3. kW Net-to-Gross Ratio

$$kW\ NTGR = 1 - (0.22) + (0.02)\ + (0.03) = 0.83$$

3. PROCESS FINDINGS

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

- Assess trade partner awareness and perceptions of motor and drive technology.
- Assess customer awareness and perceptions of motor and drive technology.
- Characterize key barriers in the customer decision-making process related to motor and drive purchases: What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Assess trade partner experiences: How can trade partners be motivated to sell more efficient motors and drives? What current activities are working well to motivate trade partners? How can Xcel Energy make sure all eligible units are being submitted for rebates? What are trade partners experiences surrounding Motor & Drive Efficiency Product electronic applications?
- Assess trade partner interest in bonuses: Would trade partner bonuses inspire trade partners to participate more frequently in the product? Which bonus structures would trade partners prefer?
- Assess interest in additional customer bonuses versus financing: Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?
- Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.

To accomplish these objectives, the evaluation team elicited feedback from product staff, participating customers, near-participant customers, and trade partners in the Xcel Energy Colorado territory. The evaluation team also conducted an analysis of historic participation data. This chapter presents key findings from the process evaluation, the evaluation team's approach to conducting the process evaluation, and specific findings relating to each evaluation objective. These findings, along with findings from the impact evaluation, inform the conclusions and recommendations presented in the final chapter.

3.1 KEY FINDINGS

The evaluation team found that, overall, customers and trade partners are very satisfied with the current product operations, and staff report product processes are running smoothly. Customers and trade partners both noted that the product was easy to participate in, and that they were happy with their experiences. Additional key findings from the process evaluation research included:

- **Key Finding: Participating customers reported high satisfaction with trade partners, and that marketing and tools from Xcel Energy were influential in their decision to participate in the product. Application paperwork, however, was rated as the largest product-related barrier.** 92% of participating customers rated their satisfaction with trade partners at a 4 or a 5 on a scale with maximum satisfaction anchored at 5, and no near-participants cited "finding a trustworthy contractor" as a barrier to their participation. Xcel Energy efforts accounted for 40% of participating customers' initial awareness of the product. These efforts included interactions with account managers, other Xcel Energy staff, the Xcel Energy website, and Xcel Energy events, expos, or demonstrations. Paperwork, however, was the most challenging product factor among near-participants, with 4 of 13 respondents citing paperwork as a barrier. Near-participants cited other barriers to participation, but these are external to Xcel Energy.
- **Key Finding: Trade partners reported high satisfaction with the trade partner manager, most commonly rating this relationship as one of their top three most important product features. Adding additional support for the trade partner manager role may further engage them and increase product participation.** More than one third (37%) of participating customers reported that trade partners were influential in their decision to participate in the product. Trade partners reported that support from the trade partner manager is valuable. However, one trade partner was not aware of who that person is, indicating there is still room to increase outreach and improve awareness of this position and the opportunities it affords trade partners.
- **Key Finding: Account managers and the Business Solutions Center (BSC) play an important role in educating participating customers about the product, but they sometimes help participating customers apply for rebates retroactively, thereby making customers full free-riders.** Satisfaction with Xcel Energy representatives and the BSC was high, with just one respondent rating satisfaction below a 3 because of outstanding rebates. However, one participating customer reported applying for rebates retroactively, thereby making them a full free-rider for that project.
- **Key Finding: All near-participant survey respondents who reported they had participated in the Product had Salesforce records of completed projects closely resembling those projects marked as "lost."** Because Salesforce automatically closes projects after they are not updated for a period of time, it is possible that transitions between staff led to new project numbers for certain projects started under one staff member and completed with another. In these cases, earlier project numbers would have been automatically marked "Lost", making the resulting participation data inaccurate.

In Section 3.2, we describe the overall approach used for the process evaluation research activities and, beginning in Section 3.3, we provide detailed results from all of these activities.

3.2 APPROACH

To accomplish the evaluation objectives for the Motor & Drive Efficiency Product, the evaluation team completed a suite of intersecting and complementary research activities in 2019. Detailed information on the sampling approach used for the research can be accessed in Appendix A.1. The following discussion highlights the research topics contributed by each research activity: staff interviews, participating customer surveys, trade partner interviews, and near-participant surveys.

STAFF INTERVIEWS

To support the process and impact evaluation of the 2018 Xcel Energy efficiency products, the EMI Consulting evaluation team conducted five telephone interviews with key staff managing and implementing the CO Motor & Drive Efficiency Product, including:

- The Xcel Energy Product Manager
- Three Energy Efficiency Engineering Team members, selected by the Xcel Energy Product Manager
- The lead Account Manager, selected by the Xcel Energy Product Manager
- The lead BSR, selected by the Xcel Energy Product Manager
- Trade Relations Manager

When the Product Manager desired feedback from more than one staff member within a team, the evaluation team conduct the interview as a group. The staff interviews covered the following topics:

- Description of the product's mechanics and goals
- Staff perceptions of the product's strengths and barriers
- Product staff evaluation priorities

Appendix B.1 presents the interview guide used for these discussions.

PARTICIPATING CUSTOMER SURVEYS

The evaluation team conducted telephone surveys with participating customers using customer records from Xcel Energy for the sample frames. The evaluation plan used for this project can be found in Appendix A.1. Sample sizes for the participating customer surveys were set at levels adequate to provide a 90% level of confidence with a minimum of +/- 10% relative precision.

For the purposes of this evaluation, a participating customer was defined as any customer that closed a Motor & Drive Efficiency Product opportunity in 2018. The participating customer sample was stratified and populated proportional to kWh savings to ensure that the sample was representative across measure type. Additionally, we selected five customers from the surveys who provided conflicting answers in the net-to-gross battery. We conducted in-depth interviews with these

participating customers so that the evaluation team could dive deeper into their decision-making and clarify their free-ridership. The participating customer survey was designed to address the following process objectives:

- Understand participating customer satisfaction and experience with the product and with Xcel Energy as an energy provider.
- Assess participating customer awareness and perceptions of motors and drives technology.

Appendix B.2 contains the questionnaire used for the participating customer survey.

NEAR-PARTICIPANT SURVEY

The evaluation team conducted telephone surveys with customers who had made inquiries about conducting projects through the Motor & Drive Efficiency Product, but who did not complete these projects. The sample size of the near-participant survey was set at levels adequate enough to provide a 90% level of confidence with a minimum of +/- 10% relative precision; though for this effort, the actual number of respondents in the sample was not large enough to reach this level of confidence. Additionally, the evaluation team was only able to conduct surveys with 18 individuals. Of these 18, 13 reported they had participated in the product. The evaluation team cross-checked these claims and confirmed that all 13 were participating customers as opposed to near-participating customers as indicated by Salesforce data. Because analysis of the five true near-participant surveys was not sufficient to determine trends in the data, the evaluation team chose to analyze all 18 data points. Thus, while results presented in this section do reflect stated research objectives, they do not necessarily represent product near-participants. Where applicable, the team has noted differences between true near participants and self-identified participants. Process objectives for the near-participant survey are listed below:

- Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.
- Characterize key barriers in the customer decision-making process related to motor and drive purchases.
- Assess interest in additional customer bonuses versus financing.

Appendix B.3 contains the instrument used for the near-participant surveys.

TRADE PARTNER INTERVIEWS

In addition to the surveys with participating customers, the evaluation team conducted 14 in-depth interviews with trade partners (e.g., contractors, vendors, and distributors). The trade partner research addressed the following process topics:

- Understand participating customer and trade partner satisfaction and experience with the product and with Xcel Energy as an energy provider.

- Assess participating customer and trade partner awareness and perceptions of motor and drive technologies.
- Characterize key barriers in the customer decision-making process related to motor and drive purchases.
- Assess trade partner experiences.
- Assess trade partner interest in incentives.
- Assess interest in additional customer incentives versus financing.

Appendix B.4 presents the interview guides used for the trade partner research.

3.3 DETAILED FINDINGS

Data on all of the process evaluation topics are presented below. Evaluation topics are divided into two broad categories: (1) awareness, barriers, and satisfaction, and (2) trade partner experiences. Within the first topic, the evaluation team included data from participant and near- participant customer as well as trade partner research activities to highlight similarities between the two groups. The synthesis of findings places an emphasis on helping Xcel Energy interpret customer and trade partner perspectives and identifying actionable opportunities for improving product operations and marketing.

AWARENESS, BARRIERS, & SATISFACTION

The first process evaluation research objectives relate to customer experiences and satisfaction with the product. Specific objectives include (1) assessing customer perceptions and awareness of the Motor & Drive Efficiency Product to better understand how this may hinder greater product participation, (2) discussing the motivation behind purchasing motor and drive products as well as barriers to pursuing efficient upgrades or new equipment, and (3) discussing customers' experiences and satisfaction with the product, including with the application process. This section discusses these objectives in conjunction with one another to highlight experiences holistically rather than limiting results to a single research objective.

Overall, our research indicates that experiences with the product are positive. While some near-participants did report challenges with Product paperwork, the largest barriers to participation are external to Xcel Energy control. Awareness of eligible equipment stemmed in part from Xcel Energy efforts (22%), but also from previous experience with equipment (29%), or from other contractors or vendors (15%). Awareness about the product most commonly came from Xcel Energy efforts (40%) or from trade partners or contractors (37%). These results indicate that product implementation is working well and that the product is affecting decisions in the marketplace even in cases where participating customers do not directly attribute their knowledge of the equipment to Xcel Energy.

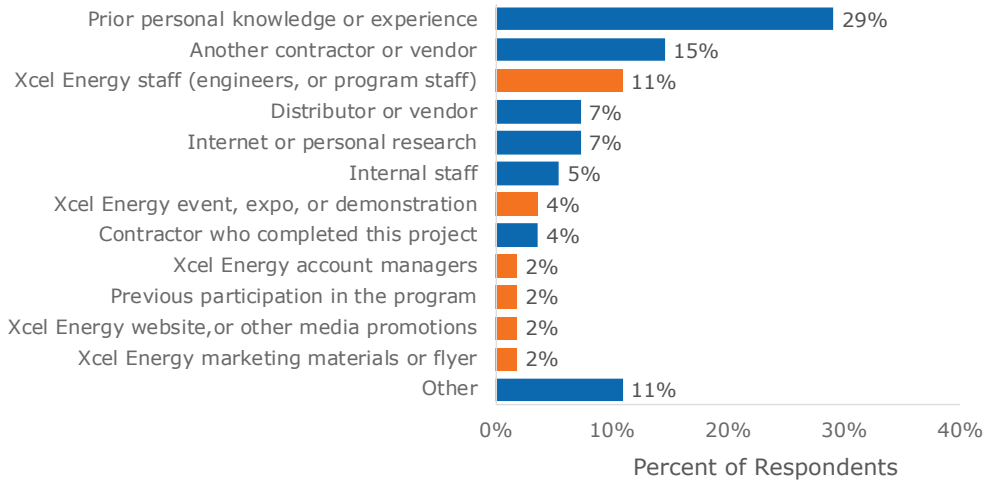
Near-participants reported that neither financing nor additional bonuses, two potential program components the evaluation team asked near-participants about, would be influential in completing more projects through the Motor & Drive Efficiency Product.

In the following sections, the evaluation team provides detailed results surrounding participating customer, near-participant, and trade ally awareness of the product, barriers to participation, and satisfaction with the product.

Awareness: Participating Customer and Near-Participant

The evaluation team asked participating customers and near-participants about their awareness of both eligible equipment and of the product itself to determine the extent to which Xcel Energy efforts have led to initial encounters with equipment or with the product. As shown in orange in Figure 3-1, approximately one quarter (23%) of participating customers reported that their awareness came from Xcel Energy efforts, including staff (11%); an Xcel Energy expo, demonstration, or event (4%); and account managers, previous product participation, and marketing or flyers (2% each). The remainder of participating customers reported they first learned of eligible motor and drive equipment from other sources, most commonly prior knowledge or experience (29%). The next most common source of equipment awareness, at 15%, was trade partners or contractors.

Figure 3-1. Participating Customer Sources of Equipment Awareness



Prior personal experience or knowledge (29%) and non-Xcel Energy contractors or vendors (15%) accounted for 44% of trade partners' awareness of product-eligible equipment, more than twice as much as can be accounted for by Xcel Energy

efforts[5] (21%). This may be an indication that the product itself has had an effect on the market. Evidence that this may be the case came up during follow-up interviews with participating customers. Some of these customers stated they knew about the equipment because they had worked somewhere else previously, where that business had installed efficient equipment due to an Xcel Energy audit. Similarly, trade partners reported the product was a significant sales driver. Though participating customers may not hear about equipment directly from Xcel Energy, Xcel Energy's engagement with trade partners provides an indirect line of communication and education to potential product participants. The fact that participating customers indicated they had heard about eligible equipment from their contractors or vendors is a sign that this line of communication has likely been effective.

In addition to asking where they heard about equipment, the evaluation team asked participating customers where they first heard about the Xcel Energy Motor & Drive Efficiency Product. As shown in Figure 3-2, Xcel Energy efforts were responsible for 40% of participating customers' awareness about the product itself, and especially efforts through Xcel Energy account managers, who were responsible for 22% of respondents' awareness. An additional 37% of participating customers became aware of the product through contractors, distributors, or vendors. The importance of Xcel Energy account managers in product awareness was reflected in the near-participant survey as well, as shown in Figure 3-3. Thirteen of those who responded to the near-participant survey indicated they had participated in the product, so the evaluation team also conducted an analysis of true near-participants as compared to those self-identified participating customers. This analysis did not indicate that trends differed strongly between these groups.

[5] Xcel Energy efforts include Xcel Energy staff (11%); Xcel Energy events, expos, or demonstrations (4%); Xcel Energy account managers (2%); Xcel Energy website or other media promotions (2%); and Xcel Energy marketing materials or flyers (2%).

Figure 3-2. Participating Customer Sources of Product Awareness

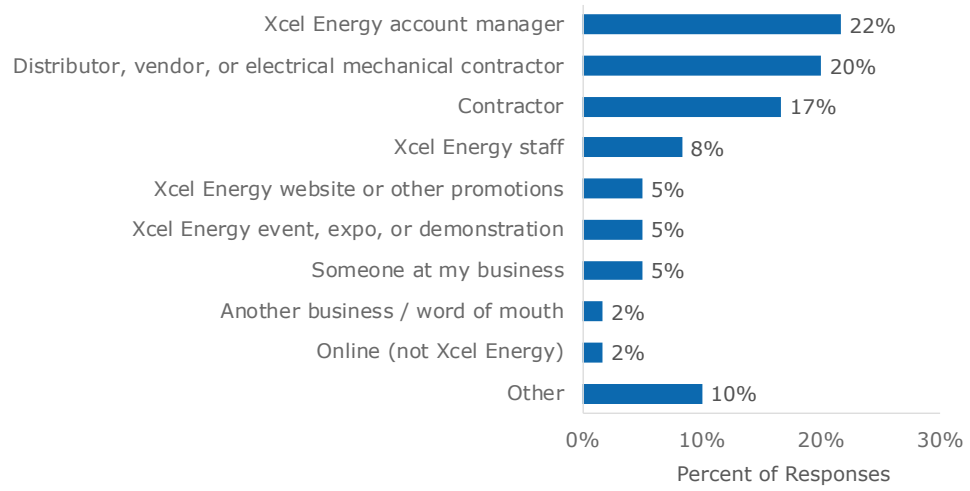


Figure 3-3. Near-Participant Sources of Product Awareness[6]

Overall, trends in product awareness and of eligible equipment indicate that Xcel Energy efforts to engage with both customers and trade partners have been successful. Some participating customers have been aware of these technologies for long enough to span multiple companies, and trade partners see the product as an integral part of their offerings, despite some reports that customers are so accustomed to these technologies that they likely would install it even if rebates were not available.

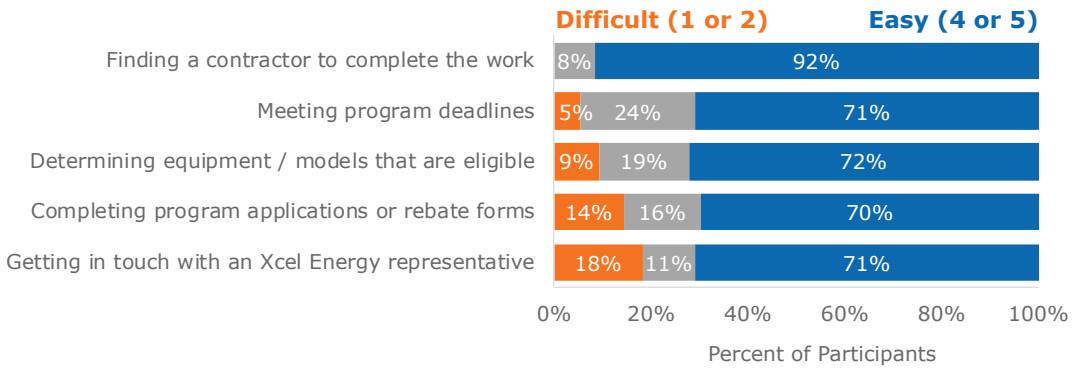
[6] Question was multiple response, therefore total number of responses is greater than the total number of respondents.

Barriers: Participating Customer, Near-Participant, And Trade Ally

While participating customers did not report significant barriers to participating in the product, some reported that getting in touch with Xcel Energy representatives was difficult (18%). The most significant barriers among near-participants—existing long-term capital improvement products and their company's budget cycle—are external to Xcel Energy.

The evaluation team asked participating customers how easy or difficult various product elements were to explore whether or not they faced any major challenges in product participation. As noted above, participating customers reported participation in the product is relatively easy; getting in touch with an Xcel Energy representative was rated most challenging, but only 18% reported difficulty related to this task. We summarize the elements our team asked about in Figure 3-4, and highlight the relative ease with which participating customers engaged with the product.

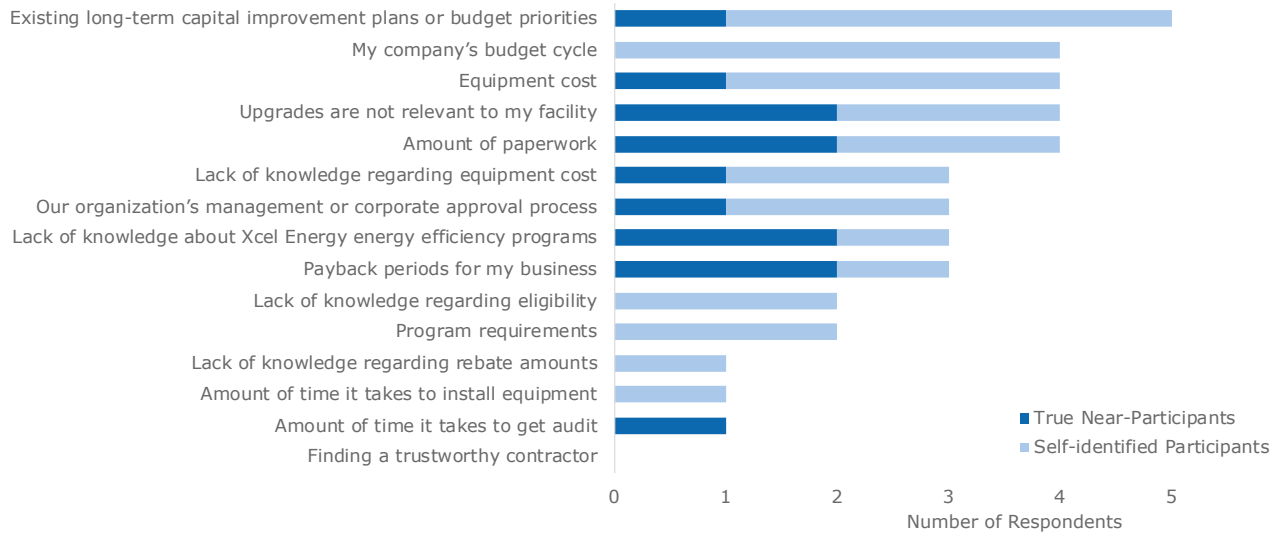
Figure 3-4. Difficulty of Product Elements – Participating Customers



Of the five elements the evaluation team asked about, the two rated most difficult—completing applications or rebate forms and getting in touch with an Xcel Energy representative—are elements Xcel Energy has an opportunity to influence directly. Specific feedback from participating customers who reported it was difficult to get in touch with representatives included that they would have liked "more follow-up on the equipment installation," that "the rebate said was not the rebate received," and that "the Xcel representative was new," which made the "whole process" challenging. Assistance for completing applications or rebate forms will be discussed further in the Trade Partner Experiences section below.

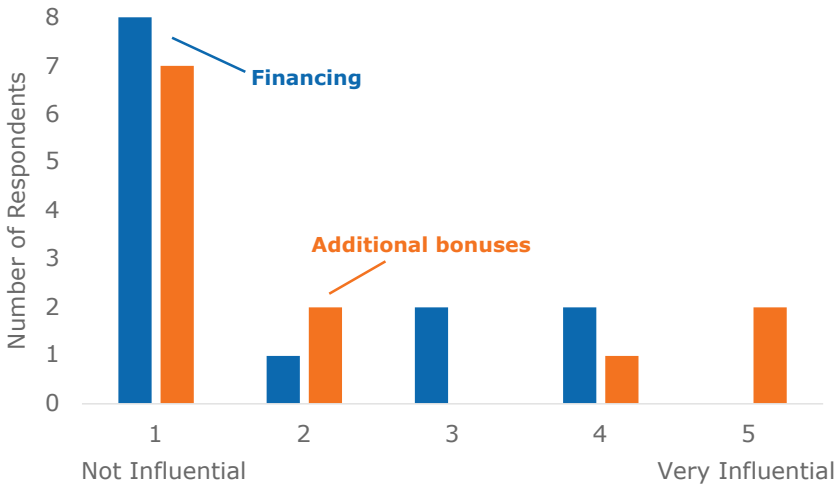
Customers who completed the near-participant survey were asked specifically about what prevented them from participating in the Motor & Drive Efficiency Product. These barriers are shown in Figure 3-5. The biggest barriers to product participation were existing long-term capital improvement projects and the company budget cycle, both of which are external to Xcel Energy. The most challenging product factors were equipment cost and amount of paperwork.

Figure 3-5. Barriers to Participation – Near-Participants



In addition to asking about current barriers to participation, the evaluation team asked whether introducing either financing or additional bonuses would increase the likelihood of participation. Near-participant survey respondents did not rate either of these as potentially influential, though self-report data for hypothetical program elements requires further investigation for conclusive results. These scores are summarized in Figure 3-6.

Figure 3-6. Influence of Financing or Bonuses: Near-Participants



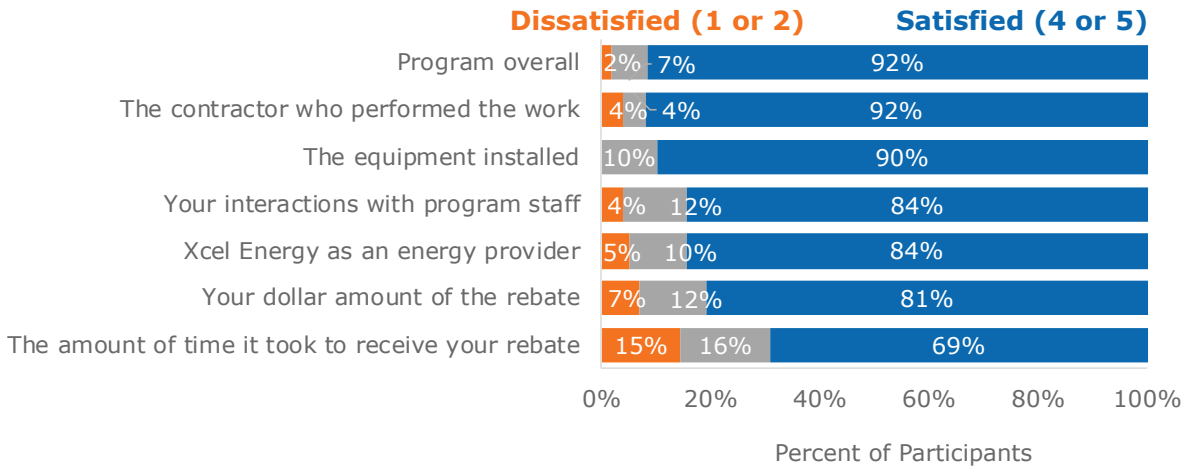
Overall, product processes did not prevent customers from participating in the Motor & Drive Efficiency Product in 2018. The most important product-related challenge that customers did face was related to completing rebate paperwork, as this is a time-consuming process that many customers are not familiar with. Neither participating customers nor near-participants reported challenges related to

interacting with or finding trade partners to complete the work, indicating strong relationships between these groups.

SATISFACTION

Participating customer and near-participant satisfaction with the product aligned with positive product experiences and the barriers discussed above. Overall, satisfaction was high, with 92% of participating customers rating satisfaction with the product at 4 or 5 out of 5. Mirroring the challenges with paperwork discussed above, participating customers reported they were least satisfied with the amount of time it took to receive a rebate, some citing paperwork issues from Xcel Energy as a barrier. A summary of satisfaction scores is presented in Figure 3-7.

Figure 3-7. Participating Customer Satisfaction



While satisfaction was generally high, the evaluation team further investigated elements with slightly lower scores. In particular, 15% of participating customers reported they were dissatisfied with the amount of time it took to receive their rebate. One quarter of participating customers also reported that receiving the rebate took longer than they had expected. Of these, two individuals believed the delay stemmed from their trade partners, while the remaining participating customers believed that delays were from Xcel Energy. While they did not provide detailed explanations, one participating customer reported the rebate taking 7-8 months to arrive, while another reported their paperwork for the rebate was lost temporarily, and that they sensed the process lacked accountability. Though another 27% of participating customers reported they received the rebate more quickly than expected and the remaining 47% that it arrived on the expected timeline, continuing to invest in efforts to send the rebate to participating customers in a timely manner may boost both participation and reputation for the product.

TRADE PARTNER EXPERIENCES

The second set of research objectives relate to trade partner experiences with the product. Specifically, the evaluation team investigated (1) perceptions and awareness of motor and drive technologies, (2) tools that trade partners find most helpful in motivating customers to purchase these technologies, (3) experience with the product and opportunities to facilitate greater participation, (4) how often trade partners use new product features, and (5) interest in trade partner bonus mechanisms.

Overall, the evaluation team found that trade partners play an instrumental role in bringing awareness of the product to their customers and in ensuring rebate applications are submitted to Xcel Energy. Half of the trade partners with whom the evaluation team spoke had experience with the online rebate application, and these same trade partners reported they always completed applications for their customers, implying a possible correlation between use of the online application and willingness to assist with product paperwork. Like participating customers and near-participants, trade partners reported high levels of satisfaction with the product, in particular with their interactions with the trade partner manager. Among some trade partners, financing options were a valuable product feature, though not all trade partners were aware of the new financing options available through Xcel Energy.

To reflect how trade partners think about each research objective, the evaluation team organized this section into three sub-sections:

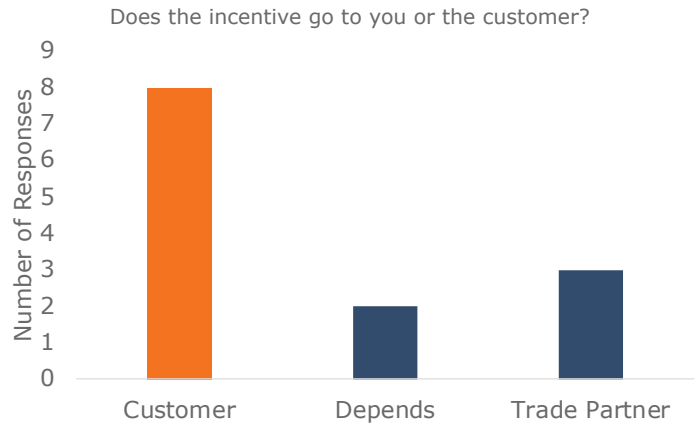
- **Product Mechanics and Eligible Sales** describes how trade partners interact with the product on a high level.
- **Online Application and Product Website** describes trade partners' perceptions of and interactions with online product resources.
- **Product Features** explores product features trade partners most value when they participate in the product.

PRODUCT MECHANICS AND ELIGIBLE SALES

The Motor & Drive Efficiency Product provides trade partners with a variety of options regarding how they structure sales, how rebate paperwork is completed, and to what extent they rely upon the product for sales of their motor and drive equipment. The evaluation team discussed each of these topics with trade partners to better understand which processes are most useful, and which elements are most helpful in supporting trade partners.

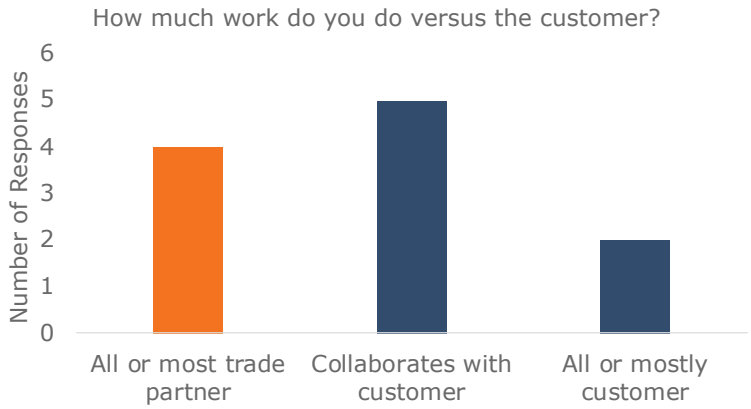
As shown in Figure 3-8, the evaluation team found that in the majority of cases (8 of 13), trade partners designate rebates to go directly to their customers rather than receiving the rebate themselves. Two trade partners are flexible around who receives rebates and reported that the sales structure depends more on customer needs than on a particular policy or preference on the part of the trade partner.

Figure 3-8. Rebate Recipient by Trade Partner



Of the 11 trade partners asked about their process for completing rebate applications, just four reported they always complete applications for their customers. The remaining seven either worked with their customers (5) or left customers to complete the application on their own (2). Figure 3-9 shows this distribution. In two cases, trade partners were not aware of whether or not their customers had completed applications or participated in the product. One of these trade partners reported providing information about rebates, but not offering assistance with completing the application, as that process takes too long. While the flexibility available through the Motor & Drive Efficiency Product is beneficial to trade partners with different sale structures, rebate applications and paperwork were cited as the top barrier to participating among near-participants. Thus, encouraging or enabling trade partners to complete rebate applications for their customers may increase product participation and satisfaction.

Figure 3-9. Responsibility for Product Paperwork



Just 4 of 13 trade partners reported they had sold an eligible project without using the product as a sales tool, primarily because they forgot to do so. The remaining nine contractors always use the product as a sales tool, which strongly indicates that the product plays an important role in the Colorado market for motor and drive equipment. Trade partners who said they do not always use the product as a sales

tool indicated that the equipment they sell through the product usually makes sense to customers even if the upfront cost is sometimes higher:

> *"A lot of times customers will take care of it on their own [to save them some money]. I make them aware of the program, let them know the options are available, but they go after it on their own."*

Of trade partners who reported they always use the product to help sell equipment, some said they do so because it decreases overall cost for the customer, while others reported the Xcel Energy product has a significant influence on customers' decisions to install more efficient equipment:

> *"Customers are reluctant to make a change unless they have to. They only will make changes to infrastructure if there is a promise behind it."*

Though not all trade partners indicated the product is paramount to selling projects, the majority of them do use it in all possible cases. While they may not necessarily credit it for making sales, their extensive use of the product points towards significant market penetration.

Because product staff are considering implementing an additional incentive for trade partners, the evaluation team spoke with trade partners to determine how this incentive would be used. As highlighted in **Error! Reference source not found.**, three-quarters of trade partners indicated they would pass the incentive on to their customers in some form, essentially increasing the rebate provided on product-eligible equipment. Because rebate amounts are currently set at a level that sufficiently encourages customers to install efficient motor and drive equipment, the evaluation team does not recommend implementing this additional trade partner bonus.

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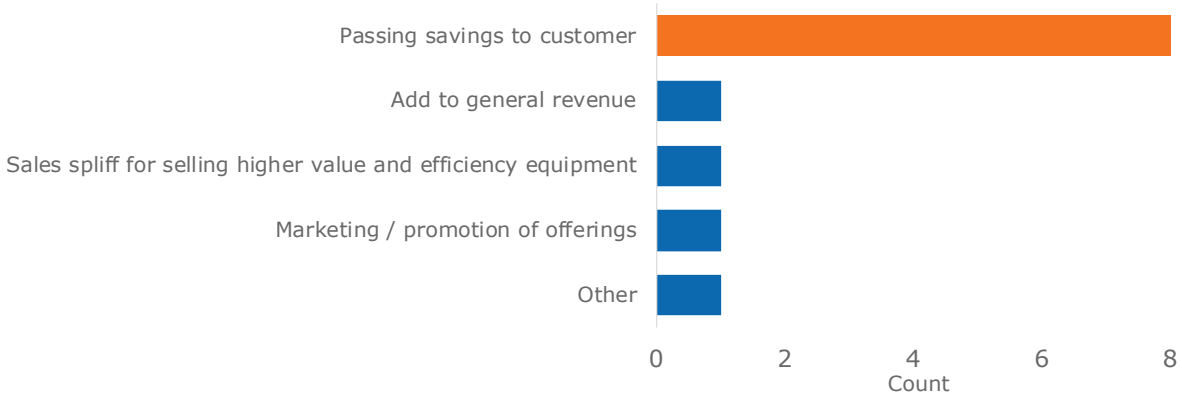
Figure 3-10. Use of Trade Partner Incentive



Overall, the flexibility afforded to trade partners in terms of how they structure their sales and rebate applications allows either trade partners or their customers to initiate product participation, thereby increasing market penetration from multiple angles. However, because participating customers are likely less familiar with the

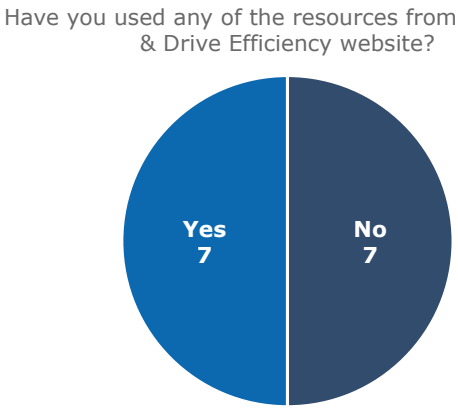
rebate and application paperwork, and because they cite this as a barrier to participation, encouraging trade partners to complete these applications for their customers, may further increase the number of product applications.

Online Application and Product Website

In addition to asking trade partners about how they interact generally with the Motor & Drive Efficiency Product, the evaluation team asked specifically about how and whether trade partners interact with the online rebate application and product website. While the product website has been available for a long time, the online application has just become available more recently. Product staff were interested in feedback from trade partners about both these online resources to understand whether they are helpful to trade partners, and where they might be further improved.

As shown in Figure 3-11, 7 of 14 trade partners have used the product website, many of them also directing their customers there if they have more questions or want more information than trade partners are able to provide. Of these seven trade partners, some use the website multiple times each year, but some only access the website when there is new product information or when rebates are updated. These trade partners access the website in order to download the product application, then store the application with their local files to provide to customers or to fill out for eligible projects.

Figure 3-11. Use of Product Website – Trade Partners



Like the product website, 7 of 14 trade partners reported they have used the online application. With one exception, all of these seven always or usually use the online version of the application and expressed satisfaction with it. The one trade partner who used the online application in the past but no longer does so reported difficulties applying online, explaining they were unable to save their session and did not always have all the necessary information available at one time. While just one individual mentioned this challenge for the evaluation of the Motor & Drive Efficiency Product, the evaluation team identified it as challenge among trade partners participating in another Xcel Energy Efficiency Product, indicating it may

pose more of a challenge to trade partners than reports from the fourteen trade partners who participated in this effort.

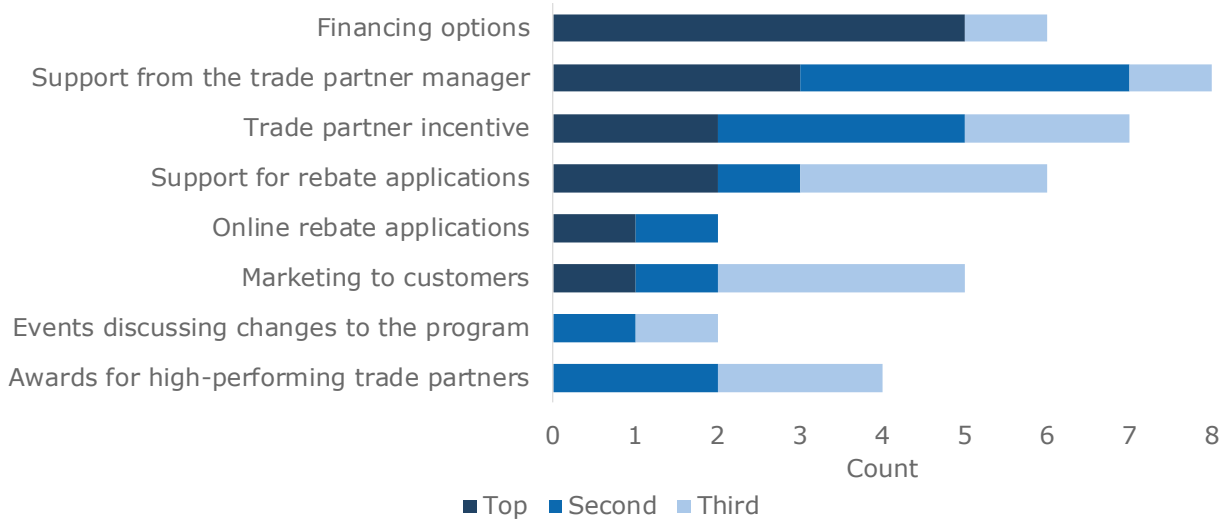
As near-participants indicated that product paperwork posed a challenge to participation in the product, the evaluation team investigated trade partner interviews to determine possible opportunities to engage trade partners in completing this paperwork. A cross-check of trade partners who used the online application with those who reported filling out rebate paperwork for their customers revealed that the seven trade partners who reported they always complete paperwork for their customers are the same seven who have used the online application. The seven who do not complete paperwork for their customers also had no experience with the online application. This pattern indicates that educating trade partners about the online application may make trade partners more likely to complete the application for their customers, thereby reducing a barrier to customer participation.

Overall, trade partners who use the product's online features find that the features are useful as they complete projects through the product. However, as just half of trade partners reported using the website and the online application, continued efforts to increase adoption of both these resources, as well as continued improvement in online application usability may further increase usage and satisfaction with the product and associate resources.

Product Features

The evaluation team asked trade partners about current and potential product features to determine which ones trade partners perceive as most useful. To do this, trade partners were asked to rate their top three product features out of eight total features offered. Figure 3-12 summarizes trade partners' top features in order of which ones were most commonly ranked the highest.

Figure 3-12. Top Product Features – Trade Partners



Though no trade partners reported they had used the new financing options available through the product, financing was most commonly cited as the most important product feature. This contrasts with reports from near-participants, 8 of 13 of who rated the potential influence of financing as a "1" out of maximum 5 influence. Trade partners who reported financing options as the most important feature indicated that existing options are not sufficient, and that standard banks do not offer products that work effectively for the kinds of projects they need to fund:

> *"I get asked all the time if there's there any kind of financing deals, you know, some people just don't have the money right away. That's what keeps them from [doing the project]. A good financing system without having to go to a standard traditional bank."*

While trade partners who were interested in additional financing options were enthusiastic about it, support from the trade partner manager was rated as the overall most important product element. One individual reported they were not aware of the trade partner manager role, but others appreciated the information provided through the manager as well as that they had a regular contact at Xcel Energy to reach out to with questions regarding the product. This connection indicates the trade partner manager is an important resource for trade partners, and that continuing to invest in this resource will ensure the product continues to run smoothly and that trade partners are satisfied.

Overall, the most important product features for trade partners are those that support trade partners in their ability to sell product-eligible projects. This includes direct support from the trade partner manager and for rebate applications, but also indirect support through additional financing options that trade partners are not able to offer on their own. Because the Xcel Energy Motor & Drive Efficiency Product relies on trade partner relationships with their customers, the evaluation team recommends supporting trade partners as much as possible in selling eligible projects. This may have a larger effect than providing direct support to participating customers who are less involved with the Product.

4. CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the research team's key findings and associated recommendations regarding the Xcel Energy Motor & Drive 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 the Motor & Drive Efficiency Product is operating smoothly, with high levels of satisfaction among participating customers, near-participants, and trade partners. There is corresponding evidence from this evaluation that the product has had a positive net impact on energy efficiency within the Xcel Energy Colorado service area. Specific findings and recommendations follow.

Key Finding 1: The product shows strong influence in the market, with retrospective NTGRs at 0.81 for kWh and 0.83 for kW. Key drivers of product influence include the rebate, Xcel Energy staff interactions, and trade partners. Additionally, the product contributed significantly to the Colorado market, especially with drive equipment. Participating customers described high-efficiency eligible measures were often described as the standard to replace existing equipment.

- **Recommendation 1: Given the known changes to the Product, the evaluation team recommends using the retrospective NTGR of 0.81 for kWh and 0.83 for kW for the prospective NTGR.** The two major changes that have occurred in 2019 and 2020 are the inclusion of water well pump VFDs and the reduction of motor incentives. Because water well pumps will receive a separate NTGR and the product works primarily with drive equipment, the evaluation team feels that neither of these changes warrant a change to the prospective NTGR.

Key Finding 2: Participating customers reported high satisfaction with trade partners, and that marketing and tools from Xcel Energy were influential in their decision to participate in the Product. Application paperwork, however, was rated as the largest product-related barrier. This indicates that capitalizing on trade partners' relationships with their customers may be an effective way to increase participation.

- **Recommendation 2: Provide trade partners additional trainings in effective marketing and tools like the simple payback calculator and online application.** This may help trade partners complete paperwork more efficiently, better assist their customers, and sell more projects through the product. Training trade partners to be better able to serve their customers may increase customer satisfaction with the product as well as increase the number of projects that trade partners can sell.

Key Finding 3: Trade partners reported high satisfaction with the trade partner manager, most commonly rating this relationship as one of their top three most important product features. Adding additional support for the trade partner manager role may further engage trade partners and increase

product participation. More than one-third (37%) of participating customers reported that trade partners were influential in their decision to participate in the product, and trade partners reported support from the trade partner manager to be valuable.

- **Recommendation 3. Invest in resources to increase trade manger outreach or other resources that would serve a similar function to the trade partner manager to increase product participation**. As trade partners seem to drive product participation, and those aware of the role reported this is a useful resource, the evaluation team recommends investing in additional resources to maintain contact with a wider range of trade partners.

Key Finding 4: Account managers and BSC representatives play an important role in educating participating customers about the product, but they sometimes help participating customers apply for rebates 'retroactively'. When the customer does not recognize that the product helped the decision to purchase efficient motor and drive equipment, customers are almost full free-riders, counteracted only by market effects. Though rebates can help build goodwill with participating customers, when customers apply for them retroactively, they increase overall product free-ridership.

- **Recommendation 4. Continue to ensure that training is provided to account managers and BSC representatives to mitigate free-ridership.** The evaluation team recommends reiterating the importance of applying for rebates retroactively only if the project has been carried out in conjunction with Xcel Energy from the beginning in order to ensure that the investment that Xcel Energy makes in the programs are delivering the greatest value for all customers and that rebates are available to customers who most need them.

Key Finding 5: Of the almost three-quarters of near-participant survey respondents who reported they had participated in the product, all had Salesforce participation records similar to the projects marked as "lost." These projects had been logged twice, likely due to Xcel Energy staff turnover and Salesforce projects closing automatically after new staff created new projects rather than updating existing ones.

- **Recommendation 5: To prevent projects from closing automatically, ensure that transitions between account representatives are smooth and complete.** This will ensure continuity of project data as well as ensure that Xcel Energy staff have an accurate overview of how many projects have been won and lost each cycle.

XCEL ENERGY

CO Motor & Drive Efficiency Product Impact & Process Evaluation

APPENDICES

December 12, 2019

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APPENDIX A: EVALUATION PLANNING DOCUMENTS

To support the process and impact evaluation of the 2018 Xcel Energy efficiency products, the EMI Consulting evaluation team will be conducting a process and impact evaluation of the Xcel Energy CO Motor & Drive Efficiency product. This memo provides an updated plan for the 2019 Xcel Energy CO Motor & Drive Efficiency product evaluation based on staff feedback during the evaluation kick-off meetings, staff interview findings, and on-site planning meetings. This evaluation plan includes the following sections:

- Product Overview
- Evaluation Overview
- Data Collection Activities and Sampling Plans
- Net-to-Gross Approach

A.1 PRODUCT OVERVIEW

The CO Motor & Drive Efficiency Product offers prescriptive and custom rebates to Xcel Energy commercial and industrial (C&I) customers who install qualifying motor and drive equipment in existing or new buildings. Rebates are offered to encourage C&I customers to purchase energy efficient motors and drives by lowering the upfront premium costs associated with this equipment. In 2018, the Motor & Drive Efficiency Product claimed over 9.9 MWh in energy savings from rebates provided in Colorado (**Error! Reference source not found.**).

Table A-1: CO Motor & Drive Efficiency Savings by Measure, January-November 2018

Measure	Units		kWh	
	Quantity	% of total	Quantity	% of total
Variable Frequency Drive	279	95%	9,783,341	98%
Water Well Pump VFDs	6	2%	145,928	1%
CO - Custom Efficiency - Motors	1	< 1%	46,950	< 1%
Upgrade Motor Enhanced	6	2%	15,113	< 1%
New Motor Enhanced	1	< 1%	118	< 1%
Total	**293**	**100**	**9,991,448**	**100.00%**

Note: This is the population of participants receiving rebates between January and November 2018. These numbers are based on aggregated data provided to EMI Consulting in April 2019.

The Motor & Drive Efficiency product includes rebates for both energy-efficient motor equipment and for variable frequency drives (VFDs). The Product offers rebates for four types of motors improvements: constant speed motor controllers, enhanced new motors (i.e. installations of new motors that exceed DOE standards), and enhanced upgrade motors (i.e. replacements of functional inefficient motors with motors that exceed DOE standards). Enhanced motors can include both induction motors and permanent magnet alternating current (PMAC) motors. Additionally, the Product offers rebates for VFDs for HVAC and non-HVAC equipment and for water well pump VFDs.

The Product is also considering several possible modifications for future cycles:

- As trade partners are a large driver of product savings, product staff want to explore the possibility of offering bonuses for trade partner participation.
- As delays on the customer-side of projects were a key driver in not meeting the 2018 energy savings goal, product staff want to explore customer bonuses for projects that are completed within the program year.

The CO Motor & Drive Efficiency product relies heavily on an active trade partner network, as well as active involvement from account managers in selling motors and drives 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 channel managers to maintain these relationships.

A.2 EVALUATION OVERVIEW

The 2019 evaluation will consist of a process evaluation and an impact evaluation. The process evaluation will focus on customer and market actor experiences with the product, while the impact evaluation will focus on estimating a net-to-gross (NTG) ratio. This section presents the objectives of the two components of the evaluation. It is followed by a more detailed description of the evaluation activities.

PROCESS EVALUATION

The evaluation team discussed process evaluation priorities during the kickoff meeting[1] and staff interviews.[2] During those conversations, several themes emerged. These themes centered primarily around customer perceptions/awareness of motors and drives, reasons why participation opportunities logged into Xcel Energy's SalesForce system are not completed, and trade partner experiences with the Product (and how to encourage greater trade partner and customer participation).

- The first topic, **customer perceptions and awareness**, is seen as a potential barrier preventing greater uptake of motors and drives technology

[1] Held on February 26, 2019.
[2] Staff interviews took place in March and April of 2019.

in the Colorado market. Product staff are interested in understanding customer awareness of the product.

- The second topic, **near-participant barriers**, may expose quick-win process improvements for the product. The issue may be explored in near-participant customer interviews.

- The third topic, **trade partner experience**, relates to the importance of trade partners in driving savings in the product. In particular, the evaluation team will ask trade partners about what support motivates or assists them to engage with the product, and about what additional support they may need to increase engagement

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

- Assess customer and trade partner awareness and perceptions of motors and drives technology.
- Characterize key barriers in the customer decision-making process related to motors and drives purchases: What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Assess trade partner experiences: How can trade partners be motivated to sell more motors and drives? What current activities are working well to motivate trade partners? How can Xcel Energy make sure all eligible units are being submitted for rebates? What are trade partners experiences surrounding Motor & Drive Efficiency Product electronic applications?
- Assess trade partner interest in bonuses: Would trade partner bonuses inspire trade partners to participate more frequently in the product? Which bonus structures do trade partners prefer?
- Assess interest in additional customer bonuses versus financing: Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?
- Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.

IMPACT EVALUATION

The objective of the impact evaluation of the Motor & Drive Efficiency product is to develop a net-to-gross (NTG) ratio documenting the extent to which product activities influenced customer purchasing decisions. The evaluation team proposes to use participant self-report surveys and near-participant self-report surveys to estimate the Motor & Drive Efficiency Product NTG, along with additional qualitative input from trade partners. Additionally, the evaluation team will conduct a small number of in-depth interviews with either the largest projects from 2018 or with survey participants with exceedingly low initial NTG estimates, since these will have

the largest impact on the overall NTG ratio. Accordingly, the **objectives of the impact evaluation** include:

- Estimate a NTG ratio documenting the product's influence on customers' decisions.
- Identify major drivers of free ridership.
- Assess market effects of the Motor & Drive Efficiency Product.

A.3 DATA COLLECTION ACTIVITIES AND SAMPLING PLAN

To meet the above objectives, we will conduct a variety of data collection activities. These are listed in **Error! Reference source not found.** and explored more in this section. The evaluation team has already conducted interviews with Xcel Energy staff members (task reference 2 in Table 2) to help understand specific needs for this evaluation.

For customer research, the evaluation team will conduct phone surveys with participating customers (task reference 3A), as well as follow-up interviews with any customers who provide conflicting information during the survey research (task reference 3B). These surveys and interviews will inform prospective and retrospective NTG estimates, as well as research questions around perceptions/awareness, customer decision making, and general product experiences. Additionally, the evaluation team will conduct surveys with near-participant customers (task reference 3C) to round out the process research surrounding customer barriers to participation and inform spillover.

For trade partner research, the evaluation team will conduct phone interviews with trade partners (task reference 4) to understand how these market actors participate in and are impacted by the Motor & Drive Efficiency Product, as well as how the product can increase this engagement. **Error! Reference source not found.** outlines each research task and the associated research objectives; details on each data collection activity are provided in the sections that follow.

Table A-2: Motor & Drive Efficiency Research Summary

Task Ref.	Research Task	Sample Size	Research Objective(s)
2	Staff Interviews	5	Inform evaluation plan, NTG
3A	Participant Surveys (phone)	60	Perceptions/awareness, customer decision making & barriers, product experience/satisfaction, use of new product features, NTG
3B	Participant Interviews	5	Perceptions/awareness, customer decision making & barriers, product experience/satisfaction, NTG
3C	Near-Participant Surveys (phone)	60	Perceptions/awareness, decision making & barriers, customer bonuses/financing, spillover
4	Trade Partner Interviews	20	Perceptions/awareness, decision making & barriers, product experience/satisfaction, use of new product features, trade partner bonus, NTG

STAFF INTERVIEWS

In March and April 2019, the evaluation team conducted five interviews with seven Xcel Energy staff to inform this evaluation plan, discuss product goals, and review product processes, challenges, and successes. Those interviewed included the current product manager, three engineers, one account manager, one trade partner manager, and one Business Solutions Center (BSC) staff. These interviews were conducted over the telephone or in person and took between 30 minutes and one hour to complete. These meetings, combined with the kickoff meeting, allowed the evaluation team to create a focused evaluation plan with defined data collection activities.

3A/B. PARTICIPANT SURVEYS AND INTERVIEWS

The evaluation team will utilize participant telephone surveys and interviews to meet both process and impact objectives. These surveys and interviews will focus on the following four topics: perceptions/awareness, customer decision-making and barriers, experience/satisfaction, and NTG impacts.

- **Perceptions/Awareness:** The evaluation team will assess customer perceptions and awareness of the Motor and Drive Product to better understand how this may hinder greater product participation.
- **Customer Decision-Making and Barriers:** The evaluation team will discuss the motivation behind purchasing motors and drives products as well as barriers to pursuing efficient upgrades or new equipment.

- **Product Experience/Satisfaction:** The evaluation team will discuss customers' experience with and satisfaction with the product, including experience with the application process.
- **NTG:** The team will ask questions on product attribution, or the impact the product had on their decision to purchase highly efficient motors and drives equipment and potential non-product measures installed because of the Xcel Energy Motor & Drive Efficiency product (spillover).

For the participant survey, the evaluation team will focus on those participants completing projects in 2018 and in the first quarter of 2019. The evaluation team will stratify the participant survey by measure type, with particular focus on the measures that account for the greatest amount of the Product's savings. The evaluation team will also attempt to sample both larger customers with a dedicated Xcel Energy account manager and smaller customers who are serviced by the Business Solutions Center. Additionally, we will select up to 5 customers from the surveys and conduct in-depth interviews with these customers. Depending on the results from the participant survey, we will conduct interviews with either the largest projects from 2018 or with survey participants with exceedingly low initial NTG estimates so that the evaluation team can dive deeper into their decision-making and clarify their free-ridership.

3C. NEAR-PARTICIPANT SURVEYS

The evaluation team will utilize near-participant telephone surveys to meet impact and process objectives. These surveys will be conducted over the phone and will focus on the following four topics: perceptions/awareness, decision making and barriers, customer bonuses/financing, and spillover.

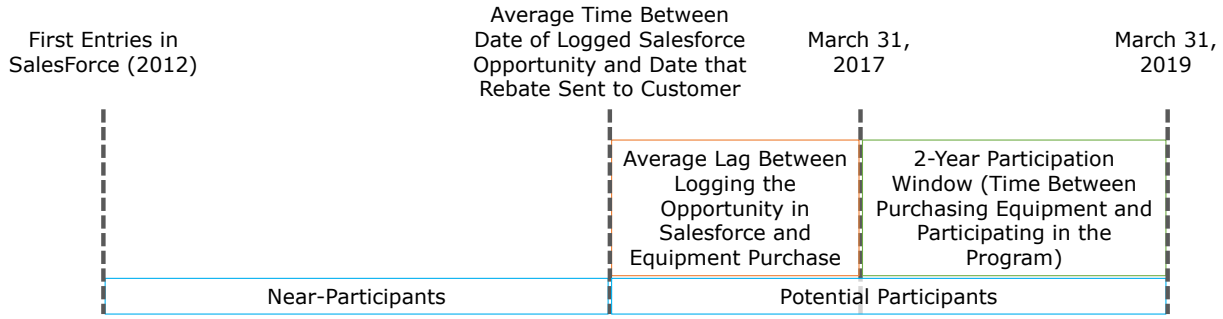
- **Perceptions/Awareness:** The evaluation team will assess customer perceptions and awareness of motors and drives technologies to identify any barriers that may hinder greater product participation.
- **Customer Decision-Making and Barriers:** The evaluation team will discuss the motivation behind purchasing motors and drives products, barriers to pursuing efficient upgrades or new equipment, and barriers to participating in the Motor & Drive Efficiency Product.
- **Customer Bonuses/Financing:** The evaluation team will explore the effectiveness of customer bonuses and financing options in encouraging participation.
- **Spillover:** The evaluation team will explore motor and drive projects that customers completed outside of the Xcel Energy product. When identified, we will assess the degree of influence the Product may have had on their decision to complete the project.

The evaluation team will attempt to complete 60 total interviews with near-participants, depending on data availability. Near-participants are defined as those customers who were registered as an opportunity in Xcel Energy's Salesforce system, but who did not submit a rebate for the project and are now unlikely to

participate in the product for that particular opportunity. Near-participants may have completed the project without submitting a rebate or may have not completed the project at all.

It is difficult to define the population of near-participant customers because of 1) the lag between logged opportunities and equipment purchase and 2) the 2-year window between equipment purchase and equipment installation. The evaluation team will exclude "current potential" participating customers from the near-participant population whose logged Salesforce opportunities may be converted to Motor & Drive Efficiency projects, as seen in **Error! Reference source not found.**. To delineate between current potential customers and near-participant customers, the evaluation team will analyze all logged opportunities in Salesforce since Xcel Energy began using the system (estimated 2012). We will find the average lag time between the date of logged opportunities and Product participation (defined as the date that the rebate was sent to the customer). The current potential participant population will be defined as customers with logged opportunities between the lag average and the end of Q1 2019. The near-participant population will be defined as customers with logged opportunities before the lag average.

Figure 1: Near-Participant Population



Depending on data availability, the evaluation team will attempt to stratify by customers who did not complete VFD opportunities and customers who did not complete opportunities other than VFDs.

4. TRADE PARTNER INTERVIEWS

The evaluation team will utilize trade partner interviews to meet both process and impact objectives. These interviews are integral for the following six evaluation objectives: perceptions/awareness, customer decision-making and barriers, product experience/satisfaction, use of new product features, trade partner bonuses, and NTG impacts.

- **Perceptions/Awareness:** The evaluation team will assess trade partner perceptions and awareness of motors and drives technologies to better

understand how this may hinder greater product participation from trade partners and their customers.

- **Customer Decision-Making and Barriers:** The evaluation team will discuss the tools trade partners find most helpful in motivating customers to purchasing motors and drives equipment, as well as any barriers they experience.
- **Product Experience/Satisfaction:** The evaluation team will discuss trade partners' product experience, including the application process (both traditional application and electronic application), and where opportunities may exist to facilitate greater participation.
- **Use of New Product Features:** The evaluation team will explore how often trade partners utilize new features of the Motor & Drive Efficiency product such as financing options through Xcel Energy partners, electronic applications, and use of resources from the Motor & Drive Efficiency website.
- **Trade Partner Bonuses:** The evaluation team will explore interest in various trade partner bonus mechanisms and compare the importance of bonuses in encouraging additional Motor & Drive Efficiency Product participation versus other Product components.
- **NTG:** Finally, the team will ask questions on product attribution, or the impact the product had on their decision to recommend motors and drives technologies because of the Xcel Energy motors and drives product. The evaluation team will discuss how the product impacts their equipment recommendations as a whole.

The evaluation team plans to interview 20 trade partners as part of this effort, as shown in Table 3. The evaluation team plans to select up to 10 trade partners as a follow-up to the participant surveys or interviews. These trade partners will be selected for customers who said the trade partner was highly influential on their project but exhibited high free-ridership in other questions. For these trade partners, the evaluation team will look to identify the Product's influence on their business practices and will use this qualitative information to directly adjust the free-ridership scores for the customers they worked with. The remaining 10 trade partners will be split between high- and low-participating VFD and motors trade partners; the exact number of trade partners in each group will be set after receiving trade partner data from product staff.

Table 3. Motor & Drive Efficiency Trade Partner Target Interviews, by Interview Strata

Trade Partner Type	Strata	Population	Target Interviews
Trade Partners	Survey follow-ups	TBD	10
	Highly active	TBD	5
	Less active	TBD	5
	Total	**TBD**	**20**

A.4 NET-TO-GROSS APPROACH

The NTG assessment aims to estimate the percent of savings achieved that can be attributed to product actions, or a NTG ratio. The NTG value includes multiple metrics, which are described in the sections below. To do so, the evaluation team will primarily use participant self-report surveys, trade partner interviews, and self-report near-participant surveys to assess product attribution, including free ridership, spillover, and market effects metrics. The team will base its methodology on the most recent Illinois Technical Reference Manual (TRM)[3] as this type of approach is used extensively in other jurisdictions both by our team and outside industry experts, and it was the basis of the NTG approach for the evaluations of the 2017-2018 Xcel Energy product evaluations.

The evaluation team will estimate a retrospective and prospective NTG value. Using multiple sources of information, including surveys with participating customers and interviews with trade partners, we will synthesize available data to develop the final NTG ratios to ensure that we provide the most accurate and reliable estimate of NTG.

This section presents the evaluation team's method to estimate retrospective and prospective NTG ratio and concludes by describing how the evaluation team will synthesize data to estimate the NTG ratio for this product.

RETROSPECTIVE NTG

The evaluation team will estimate a retrospective NTG by examining free ridership, spillover, and market effects. The evaluation team will rely primarily on data collected from customers, along with additional qualitative input from trade partners and from near-participants. The evaluation team will then synthesize these results to estimate NTG ratio at the program level. This section describes how the evaluation team will estimate these components of the retrospective NTG ratios.

[3] Illinois Energy Efficiency Stakeholder Advisory Group. Illinois Statewide Technical Reference Manual, Version 7.0, Volume 4, Attachment A: IL-NET-TO-GROSS Methodologies, Section 4. September 28, 2018. http://www.ilsag.info/il_trm_version_7.html

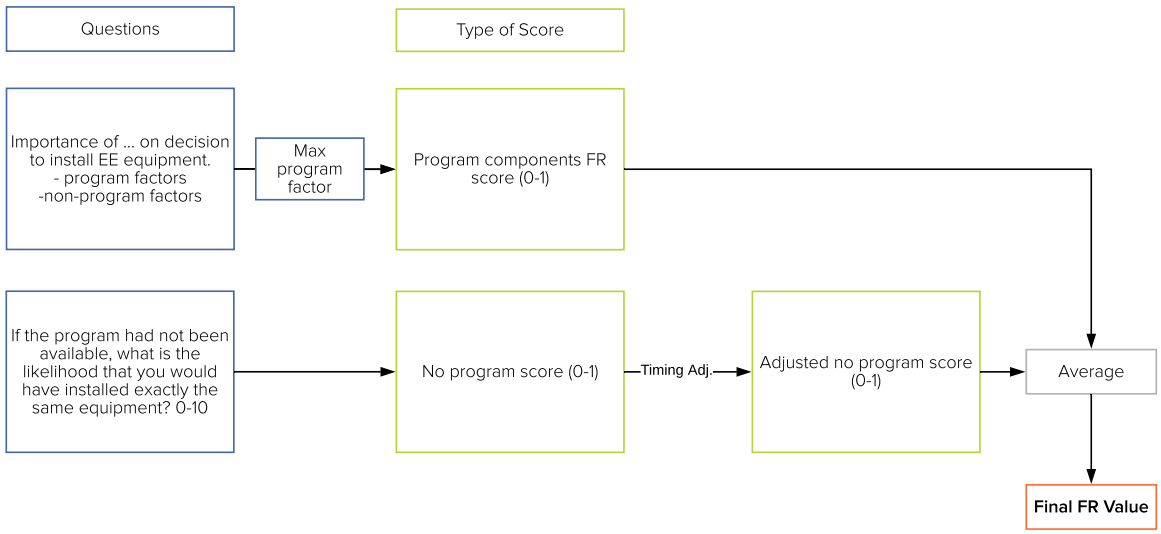
Free ridership. Free-ridership is a measure of the amount of a product's claimed savings that would have occurred in the absence of the product. Free-ridership is assessed on a scale from 0 to 1, where 1 indicates that the product had 100% free-ridership and all product savings would have occurred without any of the product's rebates or assistance.

To determine free-ridership, the evaluation team will apply the Core Non-Residential Protocol from the Illinois TRM, and write specific questions to assess three free-ridership components:

- A **Program Components Score**, based on the participating customer's perception of the importance of various product components in their decision to carry out the energy-efficient project;
- A **No-Program Score**, based on the participating customer's intention to carry out the energy-efficient project without product funds; and
- A **Timing Adjustment**, based on the participating customer's perception of when they would have carried out the project in the absence of the product.

When scored, these components assess the likelihood of free-ridership on a scale of 0 to 10, with the two scores averaged and the timing adjustment applied to create a final free-ridership score. Figure 4 describes the logic used for calculating free ridership.

Figure 4. Free Ridership Calculation Methodology[4]



For the Program Components score, the evaluation team envisions including the following items as Program Factors and Non-Program Factors:

[4] As depicted in the IL TRM Version 7, Volume 4, Figure 3-1, page 29.

Program Factors:

- The availability and amount of the rebate
- The trade partner who performed the work
- Technical assistance from Xcel Energy staff
- Information provided to the customer through program marketing or educational materials
- Information provided to the customer from Xcel Energy staff, including program staff and account managers
- Previous participation in an Xcel Energy program
- Payback on the investment, *including* the incentive

Non-Program Factors:

- Age or condition of the old equipment
- Previous experience with this type of equipment
- Corporate policy or guidelines
- Minimizing operating cost
- Scheduled time for routine maintenance
- Payback on the investment, *without* the incentive

The evaluation team will assess free ridership primarily using participant self-report surveys and will integrate trade partner interviews where applicable. Specifically, when participants rate the trade partner as highly influential on the decision to install a measure but indicate free-ridership elsewhere in the survey, the evaluation team will attempt to recruit those trade partners for the interviews and assess the program's influence on their practices. The purpose of the interview is to determine if the program's influence was directed at the trade partner, rather than the customer, and to appropriately track that influence on the project overall. The evaluation team will also complete interviews with a subset of customers who complete the participant survey. As it may not be possible to conduct these interviews for all participant survey respondents, the evaluation team will focus on the projects with the largest impact on the program's NTG or the projects that have particularly low NTG results from the survey. The evaluation team will then use qualitative adjustments for the rest of the customers.

Participant Spillover. The spillover metric represents additional savings achieved as a result of program activities, outside of rebated measure savings, by program participants. The evaluation team will incorporate two measure attribution scores; the first incorporates the influence the program had on the purchase of this additional measure (measure attribution score #1), and the second incorporates likely actions taken in absence of program participation (measure attribution score #2). The spillover score, as calculated below,[5] must be greater than five in order for the additional measure to qualify for spillover. When this criterion is met, the savings are added to program attributable savings.

[5] IL TRM Version 7, Volume 4, page 35-36.

$$Spillover\ Score = \frac{Measure\ Attribution\ Score_1 + (10 - Measure\ Attribution\ Score_2)}{2}$$

Near-Participant Spillover. The evaluation team will estimate near-participant spillover by modifying the IL TRM Core Nonparticipant Spillover Protocol (NPSO Protocol). [6] The change from the IL TRM protocol and our methodology is the target of the interviews. The evaluation team will target a subset of non-participants described as "near-participants". We define near-participants as those customers who were registered as an opportunity in Xcel Energy's Salesforce system, but who did not submit a rebate for the project and are now unlikely to participate in the product for that particular opportunity. Near-participant customers have already provided at least some information about a particular project and may be more familiar with the Motor & Drive Efficiency Product than the overall non-participant population. Theoretically, the Salesforce data provided by customers should provide data regarding the energy efficiency of the equipment, however the evaluation team will also collect equipment information during the survey to supplement the Salesforce data. The survey will also ask near-participant customers if they have completed other motor and drive projects but did not participate in the Motor and Drive Efficiency Product for that project.

To determine spillover-qualified equipment, the evaluation team will ascertain whether 1) the project described in salesforce was completed or other projects qualifying for the Motor and Drive Efficiency Product were completed and that 2) the customer did not participate in the Motor & Drive Efficiency Product for those particular projects. The evaluation team will assume that these customers meet the NPSO Protocol threshold conditions for spillover. The fact that at least one unpursued opportunity was logged into Salesforce provides credible evidence that it was at least possible for the Motor & Drive Product to have influenced the decision to install unincentivized equipment.

To estimate spillover for spillover-qualified equipment, the evaluation team will assess three spillover components:

- **Validation of Equipment Energy Usage Information:** The evaluation team will attempt to collect equipment information to support a credible estimate of savings.
- **Attribution:** The evaluation team will establish whether there is credible evidence that the Motor & Drive Efficiency Product had substantial influence on the customer's decision to install the efficient equipment.
- **Response Consistency:** the evaluation team will perform consistency checks to facilitate understanding and potentially reconcile apparently inconsistent responses.

The evaluation team will use the following algorithm to estimate near-participant spillover.

[6] IL TRM Version 7, Volume 4, page 37-41.

$$Program\ NPSO\ Rate = \frac{Program\ NPSO\ Gross\ Potential\ Savings}{Ex\ Post\ Gross\ 2018\ Impacts}$$

Market Effects. The trade partner interviews will offer important insights into market effects of the Motor & Drive Efficiency Product. Our interviews with trade partners will ask about what portion of customers install energy-efficient (or program-qualifying) motors and drives, but do not receive an Xcel Energy rebate. These additional energy efficient purchases will be considered as program impacts through the market effects assessment. The prospective NTG (described below) may also provide valuable insights into the remaining savings potential of the motors and drives market.

Estimating NTG Ratio. By design, our final NTG estimate recommendation includes data from mixed methods research – both quantitative data and qualitative data. The initial NTG estimates will be calculated through self-reported participant responses, trade partner reported NTG interview responses, and near-participant survey responses. After the initial NTG estimate is calculated, we will then utilize the quantitative and qualitative data to construct a logical, internally consistent, and coherent narrative of program attribution that attempts to identify all possible pathways of Xcel Energy influence. We will rely on the following data sources to construct the NTGR:

- Participant surveys
- Participant interviews
- Trade partner interviews
- Near-Participant surveys

Based on these results, we then may adjust the NTG to create a final recommended NTG ratio that is consistent with this narrative and is informed by product theory. The final NTG recommendation is based on the professional judgment of our team after considering all available quantitative and qualitative data.

PROSPECTIVE NTG

Given the fast-changing conditions of the motors and drives market, the team will attempt to adjust the retrospective NTG estimate to provide a more accurate forward-looking, or prospective value. Trade partners will be asked about the importance of the rebates in driving purchases of motors and drives equipment in Colorado. Their responses, coupled with our understanding of the broader market for motors and drives in Colorado, will provide the evaluation team with a program and no-program baseline that can inform a prospective NTG value. Additionally, we will use input from the staff interviews to inform potential future changes to the product and incorporate those into the final NTG estimate. We may also incorporate results from the benchmarking research into prospective NTG values used in other states to inform the estimate.

APPENDIX B: DATA COLLECTION DOCUMENTS

B.1 STAFF INTERVIEW GUIDE

INTRODUCTION

This guide is to be used to interview staff associated with Xcel Energy's DSM programs as part of the EMI Consulting 2017 evaluation of the Xcel Energy DSM programs. The interviews will be semi-structured, with these questions serving as a basic guide for experienced EMI Consulting staff during one-on-one phone interviews.[7] As a guide for semi-structured interviews, these questions will not necessarily be asked verbatim, but will serve 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

Thank you for taking the time to speak with me today. It was great speaking with you at the kick-off meeting two weeks ago. We're currently in the process of conducting interviews with program 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] 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 your experiences with the Motors & Drives Efficiency program. We are interested in asking you some questions about the Motors & Drives Efficiency program so we can benefit from your knowledge and experience to

[7] 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.

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]

A0. [FOR PROGRAM MANAGER] Before we get started, I wanted to talk through some of preferences you have for our interactions.

A0a. Generally, what are you communication preferences? Are phone or email better? Are you a morning person or night owl? Are there parts of the day/week that are more convenient to talk?

A0b. What day and times work best for our bi-weekly meeting?

A0c. You shared vacation plans for March, but are there any other vacations or events that would be helpful to discuss? [INTERVIEWERS ALSO SHARES RELEVANT DATES]

A1. [If needed] Can you take a moment and explain your role and scope of responsibilities with respect to Motors & Drives program? [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 Motors & Drives program?

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 meetings 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?
- 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?

C1e. How do program staff engage with Trade Partners and contractors?

- Touch points with the Motors & Drives program? Touch points with other programs that you are aware of?
- Outreach activities to Trade Partners?
- Trainings for Motors & Drives Trade Partners?
- Referrals to Trade Partners through the program? How do you ensure referrals are fair and equitable?
- Which Trade Partners participate in the program most frequently?

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?

D3b. In your opinion, how have these changes affected the program's operations or its outcomes?

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 Motors & Drives program?

E3. Are there any data that you would like to collect for Motors & Drives program, 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 interested in program participation, but didn't participate for whatever reason. Would these customers all be tracked in Salesforce?

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 Motors & Drives program 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: Peer Utility Benchmarking

G1. After reviewing the peer utility benchmarking memo conducted for the MN Motors & Drives program, what questions do you still have regarding peer utility programs?

G2. We'd discussed other research efforts, such as interviews with Trade Partners, in lieu of peer utility benchmarking. What questions surrounding Trade Partners do you still have?

G3. Weighing the benefits of both research efforts, which do you feel would be more beneficial to conduct?

Section H: Closing

H1. 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?

H2. Do you have particular questions that you would like to see answered by the evaluation? Why are these questions important?

H3. 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?

H4. Who else would be good to interview for the CO Motors & Drives program (engineering team members, other relevant key staff)? Can you provide their contact information?

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? [IF NEEDED] I will also follow up with you shortly to identify peer utilities and performance indicators to kick-of the benchmarking task.

B.2 PARTICIPANT SURVEY GUIDE

INTRODUCTION

To support the process and impact evaluation of the 2018 Xcel Energy energy efficiency programs, the EMI Consulting evaluation team will conduct telephone surveys with participants. For the purposes of this survey, the evaluation team defined a participating customer as any customer that closed a CO Motor and Drive Efficiency project between July 2017 and March 2019. The research will be conducted to assess key process and impact evaluation objectives, including customer satisfaction, product awareness, motivations for participating, experience with new product features, free-ridership, and spillover.

The remainder of the introduction provides the research questions which the participant survey is designed to address, a description of the sample population and the target number of completes, a description of the sample variables to support programming the survey, and fielding instructions for the survey house.

EVALUATION OBJECTIVES

The objectives for the CO Motor and Drive Efficiency product evaluation are to:

- Assess customer and trade partner awareness and perceptions of motors and drives technology.
- Characterize key barriers in the customer decision-making process related to motors and drives purchases: What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Assess trade partner experiences: How can trade partners be motivated to sell more motors and drives? What current activities are working well to motivate trade partners? How can Xcel Energy make sure all eligible units are being submitted for rebates? What are trade partners experiences surrounding Motor & Drive Efficiency Product electronic applications?
- Assess trade partner interest in bonuses: Would trade partner bonuses inspire trade partners to participate more frequently in the product? Which bonus structures do trade partners prefer?
- Assess interest in additional customer bonuses versus financing: Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?
- Estimate a NTG ratio documenting the product's influence on customers' decisions.
- Identify major drivers of free ridership.
- Assess market effects of the Motor & Drive Efficiency Product.
- Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.

The participant survey does not address every evaluation objective. For reference, the following table provides the evaluation efforts used for each objective.

Table 5: Motors and Drives Evaluation Objectives

Evaluation Objective	Impact or Process Objective	Research Activity	Participant Survey Objective
Estimate a NTG ratio documenting the product's influence on customers' decisions.	Impact	Participant surveys, near-participant surveys, and trade partner interviews	✓
Identify major drivers of free ridership.	Impact	Participant surveys	✓
Assess market effects of the Motor & Drive Efficiency Product.	Impact	Trade partner interviews	
Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.	Process	Participant surveys, near-participant surveys, and trade partner interviews	✓
Assess customer and trade partner awareness and perceptions of motors and drives technology.	Process	Trade partner interviews	✓
Characterize key barriers in the customer decision-making process related to motors and drives purchases.	Process	Near-participant surveys and trade partner interviews	
Assess trade partner experiences.	Process	Trade partner interviews	
Assess trade partner interest in bonuses.	Process	Trade partner interviews	
Assess interest in additional customer bonuses versus financing.	Process	Near-participant surveys	

Specific research questions which this participant survey is designed to address are the following:

- How well are the program's processes working for customers and trade partners?
- What aspects of the program are easy / challenging for customers and trade partners?

- Are customers satisfied with Xcel Energy as an energy provider?
- What types of customers participate in the program?
- How many have participated in other energy efficiency programs?
- Does the program influence additional energy savings OUTSIDE of what is captured through the program (spillover)?
- Would program participants install identical measures without the program availability (free ridership)?

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

Table 6: Evaluation Objective, Research Question, and Survey Question Crosswalk

Evaluation Objective	Research Question	Survey Question Number(s)
Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.	• How well are the program's processes working for customers and trade partners? • What aspects of the program are easy / challenging for customers and trade partners? • Are customers satisfied with Xcel Energy as an energy provider?	E1-E5, F1-F6
Assess customer and trade partner awareness and perceptions of motors and drives technology.	• What types of customers participate in the program? • How many have participated in other energy efficiency programs?	A1-A5a, B1a-B2, F1-F6
Estimate a NTG ratio documenting the product's influence on customers' decisions.	• Does the program influence additional energy savings OUTSIDE of what is captured through the program (spillover)?	D0-D6d, S1-S12
Identify major drivers of free ridership.	• Would program participants install identical measures without the program availability (free ridership)?	D0-D6d

Sample Population and Target Completes

The following table provides the sample population based on data provided to the evaluation team in April 2019. The population was established from the unique set of respondents in the Salesforce opportunity data (based on either account number or customer name, depending on the nature of the customer). The population is broken out by the amount of savings, in kWh, from each participating customer in

the sample period (July 2017 to March 2019). Participants were binned based on the average participant energy savings in the period, with those at or exceeding the average (123,860 kWh) binned as "large savings" participants and those below the average as "small savings". Participants were also binned based on the equipment type they rebated through the product.

Table 7: Sample Population and Target Completes by Strata

Amount of Product Savings in Period	Equipment Type	Population	Target Completes	Response Rate for Statistically Significant Results
Large Savings (≥ 123,860 kWh)	VFDs Only	72	N/A	N/A
Large Savings (≥ 123,860 kWh)	At Least Some Non-VFDs	6		
Small Savings (< 123,860 kWh)	VFDs Only	208		
Small Savings (< 123,860 kWh)	At Least Some Non-VFDs	14		
Overall		**300**	**60**	**20%**

Sample Variables

The following table include the sample variables that will be used to conduct this survey, as well as descriptions of these variables and potential codes.

Table 8: Sample Variables

Sample Variable	Variable Description	Potential Codes
Interviewer Name	Name of interviewer from Ewald and Wasserman	e.g. Nicole Thomas
Organization	Organization name	e.g. EMI Consulting
Contact	Contact at organization	e.g. Robert Saul
Month	Month customer completed project through program	e.g. May
Year	Year customer completed project through program	e.g. 2018
Program	Program name	e.g. "Drive Efficiency program" or "Motor Efficiency program"
Participation_Description	Short description of customers' participation in program	e.g. "8 VFDs"
Phone	Phone number for contact at organization	e.g. 555-555-5555
Measure_Description	Measure installed through program (note: if multiple installed, this is the primary measure in terms of % of savings)	e.g. "VFD", "motor"
Dollar_Amount	Amount of rebate for the measure installed through the program	Numeric

FIELDING INSTRUCTIONS

- Attempt each record 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.
- The survey is considered complete when CLOSE1 is answered.
- After the survey fielding subcontractor (Ewald and Wasserman) completes 5 interviews, hold calling and output a preliminary SPSS dataset and recordings of the pretest interviews. Resume calling after EMI Consulting checks the data (usually with 1-2 working days).
- Monitor at least 10 percent of the interviews to ensure proper interview protocols (e.g., reading questions verbatim, proper probing, accurate data entry).
- Calling hours are 9 AM to 5 PM MDT.

SURVEY SECTIONS

- **Intro.** Introduction and Screening
- **A.** Firmographics, Operations, Participation
- **B.** Awareness
- **D.** Free-ridership
- **S.** Spillover
- **E:** Program Implementation and Processes
- **F:** Satisfaction and Net Promotor
- **CLOSE:** Closing

SURVEY

SECTION INTRO: INTRODUCTION AND SCREENING

Intro1. Hello, this is **<INTERVIEWER NAME>** calling from Ewald and Wasserman, a national research firm working with Xcel Energy. I'm hoping to speak to someone at your organization who would be familiar with your participation in the Xcel Energy **<PROGRAM>** in **<MONTH> <YEAR>.** Our records show that you received a rebate from this program for installing **<PARTICIPATION_DESCRIPTION>.** May I speak with **<CONTACT>?**

1. Yes, that would be me.
2. Yes, let me transfer you to the correct person **[IF NAME GIVEN, ENTER AS <CONTACT>; REPEAT QUESTION INTRO1 WITH NEW RESPONDENT]**
3. No, they are not available right now.
4. No, they are no longer employed by this organization.
5. No, other reason (SPECIFY).

DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO1=1, 4, OR 5]

Intro2. Are you the person at **<ORGANIZATION>** who is most familiar with your participation in the Xcel Energy Motor and Drive Efficiency program, or at least as familiar as anyone else there?

1. Yes.
2. No, they are not available right now.
3. No, that's someone else.
4. No, that person no longer works here.
5. Not applicable – this organization did not participate in any such program. **[TERMINATE]**

DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO2=4]

Intro3. Is there someone else that is knowledgeable about your participation in the Motor and Drive Efficiency program?

1. Yes.
2. No **[TERMINATE]**

DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO2=2-3 OR INTRO3=1]
Intro4. What is this person's name?
1. [RECORD CORRECT PERSON'S NAME AS **<CONTACT>**]
DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO4=1]
Intro4. Would I reach that person by dialing the same number I used to connect with you: **<PHONE>**?
1. Yes
2. No, use a different number (RECORD HERE AS **<PHONE>**) **[THANK AND TERMINATE; REDIAL NEW SAMPLE CASE]**
DK **[TERMINATE]**
REF **[TERMINATE]**

PROGRAMMER NOTE: Only those for whom Intro1=1 or Intro2=1 should get to this screen; the rest would end at Intro5 as they will need to be made into new sample cases and called back at a later time.

[ASK IF INTRO1=1 OR INTRO2=1]
Intro6. Great! (IF NEEDED: Again, we're Ewald and Wasserman, a national research firm calling on behalf of Xcel Energy). I would like to invite you to participate in a short survey that will help Xcel Energy improve the Motor and Drive Efficiency program to best suit the needs of businesses like yours. The survey takes about 20 minutes on average, and as a small token of appreciation, we are offering a $25 gift card that you will receive after completing the survey. Your responses will remain confidential, meaning that your name and company name will not be attributed to your answers.

Is now a good time or should we call you back?

1. No objection – fine to continue
2. Objection **[RESOLVE AND RESCREEN AS NECESSARY]**
REF **[TERMINATE]**

SECTION A: FIRMOGRAPHICS, OPERATIONS, PARTICIPATION

First, I'd like to gather some information about your involvement with the Xcel Energy Motor and Drive Efficiency program and your role at your organization.

A1. What is your occupational title within your company? **(ASK OPEN END, PROBE FOR SPECIFICS / VERIFY SELECTION AS NEEDED)**
1. Facilities Manager
2. Energy Manager
3. Proprietor / Owner

4. Other facilities management / maintenance position
5. Other manager / assistant manager
6. President / CEO
7. Chief Financial Officer
8. Vice President / Director / Assistant Director / Department Head
9. Other _____
99. Prefer not to answer
DK

A3. Has your organization previously participated in this or any other Xcel Energy energy efficiency program for your business?
1. Yes
2. No
DK
REF

A4. Did a contractor install the equipment you had rebated as part of the Xcel Energy Motor and Drive Efficiency program, or did you install the equipment with in-house staff?
1. Used a contractor
2. Installed equipment with in-house staff
DK
REF

A5. Were you the primary contact between your facility and the Xcel Energy program staff?
1. Yes
2. No
DK
REF

[If A5 = 2]

A5a. Who was the primary contact?
1. **<SHOW IF A4=1>** Contractor
2. Someone else at my firm (title) _____
3. Other _____
DK
REF

Section B: Awareness

B1a. Next, I'd like to understand a little more about how you became aware of **<MEASURE_DESCRIPTION>**. Were you aware of this technology as an energy saving measure prior to your decision to participate in this program?
1. Yes
2. No
DK
REF

B1b. How did you first become aware of the potential to use **<MEASURE_DESCRIPTION>** to save energy at your facility? (DO NOT READ. ASK OPEN END, PROBE TO CATEGORIZE. SELECT ONE)
1. Through Xcel Energy staff (engineers, or program staff)
2. Through Xcel Energy account managers
3. Through the distributor or vendor who sold you this equipment
4. Through another contractor or vendor (NOTE: Please verify this is not through the same contractor who completed their project / sold them equipment for the project)
5. Through previous participation in the program
6. Through the Xcel Energy website or other media promotions
7. Through the internet or personal research
8. Through internal staff (NOTE: Please verify this is staff internal to the customers' company, not Xcel Energy or their contractor)
9. Through an Xcel Energy event, expo, or demonstration
10. Through Xcel Energy marketing materials or flyer
11. Through the contractor who completed this project
0. Other _____
DK
REF

B2. And how did you first become aware of Xcel Energy's rebates for Motors and Drives equipment? (DO NOT READ. ASK OPEN END)
1. Contractor
2. Distributor, vendor, or electrical mechanical contractor
3. Xcel Energy staff
4. Xcel Energy account manager
5. Xcel Energy website or other media promotions (TV, mass media ads)
6. Xcel Energy event, expo, or demonstration
7. Xcel Energy marketing materials or flyer
8. Another business / word of mouth
9. Someone at my business
10. Online (not Xcel Energy)
11. Social media (e.g. Facebook, Twitter, LinkedIn)
12. Television advertisement
0. Other _____
88. DK
99.REF

SECTION D: FREE-RIDERSHIP

Do. In your own words, how would you describe the influence that the Xcel Energy <PROGRAM> had on your decision to purchase/install this <MEASURE_Description>?
1. [RECORD VERBATIM]
DK
REF

Do_1. (INTERVIEWER: PLEASE READ THE FOLLOWING SLOWLY AND CAREFULLY)

Making decisions can sometimes be relatively simple, involving one major factor, like price. Or, they can be relatively complex involving multiple factors such as price, information provided by your contractor or utility, and concerns about high electricity bills.

[SELECT HALF OF PARTICIPANTS TO RANDOMLY SHOW D0_2 BEFORE D0_3; FOR THE OTHER HALF, SHOW D0_3 BEFORE D0_2]

D0_2. **[SHOW IF D0_2 SHOWN SECOND:** There might be other things that influenced your decision such as materials provided by Xcel Energy.**]** As part of this project, Xcel Energy offered you:
[RANDOMIZE THE FOLLOWING LIST]

- An incentive of [INSERT <DOLLAR_AMOUNT>]
- Information through marketing or informational and educational materials about the benefits of installing <MEASURE_Description>
- An endorsement or recommendation by your Xcel Energy account representative or other Xcel Energy staff
- Engineering or other technical assistance provided by Xcel Energy or by a third party that was funded through Xcel Energy, and
- **[SHOW IF A4=1:** Recommendations or information provided from a program-affiliated contractor or vendor]In addition, you may have received support from prior participation in an Xcel Energy program.

D0_3. **[SHOW IF D0_3 SHOWN SECOND:** There might be other things, not related to the program that might also **[SHOW IF D0_3 SHOWN FIRST:** Many factors may**]** have influenced your decision to install <MEASURE_Description> For example, maybe

- High electric bills,
- Company policies,
- Your own experiences with energy efficient equipment, or
- Your own research on energy efficiency equipment.

D1. There are of course many other possible reasons.

Next, I'm going to ask a few questions about your decision to install <MEASURE_Description>. Please rate the importance of each of the following factors on your decision to install <MEASURE_Description> using a scale from 0 to 10, where 0 means "not at all important" and 10 means "extremely important". The bigger the number, the greater the influence. If you don't know, just say "I don't know". Now, how important was…
(RANDOMIZE D1a-D1o, REPEAT SCALE AS NECESSARY)

1. [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
DK
REF

D1a. A contractor recommendation [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

D1b. The dollar amount of the rebate [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
D1c. An endorsement or recommendation by your Xcel Energy account manager or an Xcel Energy Business Solutions Center representative [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
D1d. An endorsement or recommendation by other Xcel Energy staff [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]] **[ANCHOR POSITION – IMMEDIATELY AFTER D1C]**
D1e. Information from Xcel Energy marketing or informational materials [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
D1f. Previous experience with this type of equipment [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

[ASK IF D1f>5 & D1f<11]
D1f_1. Was this experience through an Xcel Energy program?

1. Yes
2. No
DK
REF

D1g. The age or condition of the old equipment [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
D1h. The simple payback period, which is the amount of time until equipment has paid for itself [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

[ASK IF D1h>5]
D1h_1. Did Xcel Energy provide you with information on the simple payback period?

1. Yes
2. No
DK
REF

[ASK IF D1h_1=1]
D1h_2. In your own words, how important was the information provided by Xcel Energy on the simple payback period in your decision to install this equipment?

1. [RECORD VERBATIM]
DK
REF

D1i. Corporate policy or guidelines [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]
D1j. Minimizing operating cost [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

[ASK IF D1j>5]
D1j_1. Did Xcel Energy provide you with information on minimizing operating costs?

1. Yes
2. No
DK
REF

[ASK IF D1j_1=1]
D1j_2. In your own words, how important was the information provided by Xcel Energy on minimizing operating costs in your decision to install this equipment?

1. [RECORD VERBATIM]

DK
REF

D1k. Predetermined timeline or schedule for replacing equipment [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

D1l. Total amount of money saved over lifetime of the equipment, otherwise known as the return on investment or "ROI" [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

D1m. Your previous participation in an Xcel Energy program [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

D1n. Information received from any training or events conducted by Xcel Energy [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

D1o. Were there any other factors that were important to your decision to participate in the program? **(ASK OPEN END)**

1. Yes (SPECIFY, RECORD OPEN END)
2. No additional factors
DK
REF

[ASK IF D1o=1]

D1o_1. On the same scale from 0 to 10, how would you rate the importance of that factor? [NUMERIC OPEN END, 0 – 10, 77=NA 88=DK, 99=REF]

1. [NUMERIC OPEN END, 0 - 10]
DK
REF

[CREATE INTERNAL VARIABLE: Max_ProgramFactor.
IF D1f_1=1 OR D1h_1=1 OR D1j_1=1, SET Value = max(D1a, D1b, D1c, D1d, D1e, D1f, D1h, D1j, D1m, D1n).
ELSE, SET Value= max(D1a, D1b, D1c, D1d, D1e, D1m).]

D5a. If the incentive, information, and support from the Xcel Energy **<PROGRAM>** was not available, would you have installed the *exact same number, type, model, and efficiency* of **<Measure_Description>**? If you are not sure, please let me know.

1. Yes
2. Maybe / not sure
3. No
77. Would not have installed <MEASURE_Description> at all
REF

[ASK IF D5a=1,2,REF, ELSE SKIP TO S1]

D5b. Using a scale from 0 to 10, where 0 means "not at all likely" and 10 means "extremely likely", please rate the likelihood that you would have installed the *exact same number, type, model, and efficiency* of **<MEASURE_Description>** if the Xcel Energy **<PROGRAM>** was not available.

1. [NUMERIC OPEN END, 0 - 10]
DK
REF

PROGRAMMING NOTE:
if (ans = 0) skp D5e
if (ans = 1) skp D5e
if (ans = 2) skp D5e
if (ans = 3) skp D6c
if (ans = 4) skp D6c
if (ans = 5) skp D6c
if (ans = 6) skp D6c
if (ans = 7) skp D5d
if (ans = 8) skp D5d
if (ans = 9) skp D5d
if (ans > 76) skp D6c

[ASK IF D5b=10]

D5c. To clarify, you just told me that it is extremely likely that you would have installed the exact same number, type, model, and efficiency equipment if you did not have any support, information, or rebates from the Xcel Energy Motor and Drive Efficiency program.

Is that correct, or do you want to change the likelihood that you would have installed the same equipment without support from Xcel?
1. Yes, rating is correct [skp D6c]
2. No, rating is incorrect, want to change likelihood **[LOOP BACK TO D5b]**

DK [skp D6c]
REF [Skp D6c]

[ASK IF D5b = 7-9 and Max_ProgramFactor > 7]

D5d. You just rated your likelihood to install **<MEASURE_Description>** without any support or incentives from the Motor and Drive Efficiency program as a(n) **<RESTORE RESPONSE FROM D5b>** out of 10, suggesting that the program was not very important. Earlier, when I asked you to rate the importance of each program factor on your decision, the highest rating you gave was a **<Max_ProgramFactor>** out of 10, suggesting that the program was very important. Is this correct or should I go back and change one of your answers?
1. Correct – leave answers as is [D6c]
2. Change the likelihood of installing **<MEASURE_Description>** without the program **[RETURN TO D5b]**
3. Change the influence of the program factors **[D6c]**

DK [skp D6c]
REF [skp D6c]

[ASK IF D5b < 3 and Max_ProgramFactor < 3]

D5e. You just rated your likelihood to install **<MEASURE_Description>** without any support incentives from the Motor and Drive Efficiency program as a(n) **<RESTORE RESPONSE FROM D5b>** out of 10, suggesting that the program was very important. Earlier, when I asked you to rate the importance of each program factor on your decision, the highest rating you gave was a **<Max_ProgramFactor>** out of 10, suggesting that the program was not very important. Is this correct or should I go back and change one of your answers?

1. Correct – Leave answers as is [skp D6c]
2. Change the likelihood of installing **<MEASURE_Description>** without the program **[RETURN TO D5b]**
3. Change the influence of the program factors

DK
REF [skp D6c]

[ASK IF D5d = 3 OR D5e = 3]

D5FactorUpdate. You said you would like to change the influence of program factors. Which factor(s) would you like to change and what would you like to change them to? (Lower # = Lower importance, Higher # = Higher importance)

1. A contractor recommendation (you said %D1a%/10):
2. The dollar amount of the rebate (you said %D1b%/10):
3. An endorsement or recommendation by your Xcel Energy account manager or other Xcel Energy staff (you said %D1c%/10):
4. Information from Xcel Energy marketing or informational materials (you said %D1d%/10):
5. Your previous participation in an Xcel Energy program (you said %D1e%/10):

[ASK IF D5a=1,2,REF]

D6c. In absence of the Xcel Energy program, when would you have installed the *exact same number, type, model, and efficiency* of **<Measure_Description>** you installed through the **<PROGRAM>**? Would it have been… [READ CODES 1-99]

1. Within one year of installation?
2. Between 1 and 2 years later
3. Between 2 years and 3 years later
4. Between 3 years and 4 years later
5. Greater than 4 years later

77. Or would you not have installed the exact same equipment

DK
REF

D6d. Asking this same question in a different way -- using a scale from 0 to 10, where 0 means "not at all likely" and 10 means "extremely likely", what is the likelihood that you would have installed the *exact same number, type, model, and efficiency* of the <MEASURE_Description> you installed within 12 months of <MONTH> <YEAR> if the program was not available.

1. [NUMERIC OPEN END, 0 - 10]

DK
REF

Section S: Spillover

S1. Since your participation in the **<PROGRAM>** in <MONTH> <YEAR>, has your company installed any efficient Motors or Drives products at this facility without a rebate from Xcel Energy? When I say "efficient Motors and Drives products", I mean equipment that is eligible for an Xcel Energy rebate.

1. Yes
2. No

DK
REF

[ASK IF S1=1, ELSE SKIP TO S7]

S1a. Why did you not apply for an Xcel Energy rebate for purchasing these efficient Motors or Drives products?
1. [OPEN END]
DK
REF

S2. Did your experience with the efficient Motors or Drives products you installed through the Xcel Energy **<PROGRAM>** influence your decision to install some or all of the additional efficient equipment on your own?

1. Yes
2. No
DK
REF

[ASK IF S2=1, ELSE SKIP TO S7]

S3. What type of Motors or Drives equipment did you install? For example, was it... LIST ALL TYPES, ALLOW MULTIPLE]

1. Efficient motors
2. Permanent magnet alternating current (P-MAC) motors
3. Variable Frequency Drives (V-F-Ds)
4. Or something else? **<SPECIFY>**
DK
REF

[ASK IF S3=1-4, ELSE SKIP TO S7]

S4a. Approximately how many of each type did you install? How many...[READ TYPES LISTED IN S3]

S4a_1. Efficient motors
S4a_2. Permanent magnet alternating current (P-MAC) motors
S4a_3. Variable Frequency Drives (V-F-Ds)
S4a_4. <SPECIFY>

1. [NUMERIC OPEN END]
DK
REF

[ASK IF S3=1-4, ELSE SKIP TO S7]

S4b. What was the horsepower of the... [READ TYPES LISTED IN S3]

S4b_1. Efficient motors
S4b_2. Permanent magnet alternating current (P-MAC) motors
S4b_3. Variable Frequency Drives (V-F-Ds)
S4b_4. <SPECIFY>

1. [NUMERIC OPEN END (0.0-500.0)]
DK
REF

[ASK IF S3=1-4, ELSE SKIP TO S7]

S5. How important was your experience in the **<PROGRAM>**, including the equipment you installed through the program, in your decision to install the additional equipment on your own? Please use a scale from 0 to 10, where 0 is "not at all important" and 10 is "extremely important".
1. [NUMERIC OPEN END (0-10)]
DK
REF

[ASK IF S3=1-4, ELSE SKIP TO S7]

S6. If you had not participated in the **<PROGRAM>**, how likely is it that your organization would have installed these additional efficient Motors or Drives products, using a scale from 0 to 10, where 0 means you definitely WOULD NOT have installed and 10 means you definitely WOULD have installed them?
1. [NUMERIC OPEN END (0-10)]
DK
REF

S7. Since your participation in the <PROGRAM>, have you installed any additional energy efficient equipment, other than Motors or Drives, at this or other facilities in Xcel Energy's territory?
1. Yes
2. No
DK
REF

[ASK IF S7=1]

S8. Did you receive a rebate for any or all of this equipment through Xcel Energy or any other energy efficiency program?
1. Yes, we received a rebate for **all** of the equipment
2. Yes, we received a rebate for **some** of the equipment
3. No
DK
REF

[ASK IF S8=2-3, ELSE SKIP TO E1]

S9. **[IF S8=2:** Thinking only about the equipment for which you did **NOT** receive a rebate,**]** Did your experience with the Xcel Energy **<PROGRAM>**, including the equipment you installed through the program, influence your decision to install some or all of these efficient products?
1. Yes
2. No
DK
REF

[ASK IF S9=1, ELSE SKIP TO E1]

S10. What equipment did you install? Please provide as much detail as you can. (PROBE FOR NUMBER INSTALLED, EQUIPMENT TYPE, EFFICIENCY, SIZE)
1. (OPEN END)
DK [SKP E1]
REF [SKP E1]

[ASK IF S9=1, else skip to E1]

S11. How important was your experience in the <PROGRAM> in your decision to install this equipment using a scale from 0 to 10, where 0 is "not at all important" and 10 is "extremely important"?
1. [NUMERIC OPEN END, 0 – 10]
DK
REF

[ASK IF S9=1]

S12. If you had not participated in the **<PROGRAM>**, how likely is it that your organization would have installed these additional efficient products, using a scale from 0 to 10, where 0 means you definitely WOULD NOT have installed and 10 means you definitely WOULD have installed them?
1. [NUMERIC OPEN END, 0 – 10]
DK
REF

SECTION E: PROGRAM IMPLEMENTATION AND PROCESSES

Next, I want to ask you a few questions about your experience with the program, and how the program's processes worked for you.

E1. I am going to ask you to rate how easy or difficult the following tasks associated with the **<PROGRAM>** were to complete, using a scale from 1 to 5, where 1 is "very difficult" and 5 is "very easy". You may also tell me if something was not applicable to your experience. How would you rate the ease of… **(PAUSE AFTER EACH FOR RESPONSE. REPEAT SCALE IF NEEDED).**

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
DK
REF

(RANDOMIZE)
E1a. Completing program applications or rebate forms
E1b. Meeting program deadlines
E1c. Getting in touch with an Xcel Energy representative
E1d. Determining equipment / models that are eligible
E1e. <SHOW IF A4=1> Finding a contractor to complete the work

[For any E1 < 3]
E2a – E2e. Why was it not easy to **<RESTORE QUESTION WORDING FROM E1A – E1E>**

_____

E3. Would you have liked more contact, less contact, or about the same amount of contact from Xcel Energy during your Motor and Drive Efficiency project?

1. More
2. Less
3. About the same
DK
REF

[ASK IF E3=1]

E4. What would you have liked Xcel Energy to contact you about more?
1. [OPEN END]
DK
REF

E5. From the time work started to the time you received your rebate, did the project take less or more time than you expected to complete? Please answer using a scale from 1 to 5, where 1 means the project took "much less time than expected" and 5 means it took "much more time than expected".
1. [NUMERIC OPEN END, 1 – 5]
77. Have not completed project / received rebate
DK
REF

Section F: Satisfaction (Programs and Components) and Net Promoter

F1. Thank you for your patience; we have only a few questions left. I'm going to ask you to rate your satisfaction with various aspects of the program. For each, please rate your satisfaction on a scale from 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied", or let me know if it is not applicable to your project. How would you rate your satisfaction with: **[RANDOMIZE, PAUSE AFTER EACH FOR RATING, REPEAT SCALE IF NECESSARY]**

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
DK
REF

(RANDOMIZE)
F1a. The equipment installed
F1b. <ASK IF A4=1> The contractor who performed the work
F1c. The amount of time it took to receive your rebate
F1d. The dollar amount of the rebate
F1e. Your interactions with program staff
[For any F1 < 3]
F2a – F2e. Why weren't you satisfied with **<RESTORE QUESTION WORDING FROM F1A – F1E>**

_____

F3. Thinking about your experience from start to finish, how would you rate your satisfaction with the **<PROGRAM>** as a whole? (IF NEEDED: Please use the same scale from 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied")

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
DK
REF

[ASK IF F3 <3]

F3a. Why weren't you satisfied with your experience with the **<PROGRAM>?**
1. [OPEN END]
DK
REF

[ASK IF F3 = 3-4]

F3b. What else could Xcel Energy do to improve your satisfaction with the **<PROGRAM>?**
1. [OPEN END]
DK
REF

F4. What did you like most about your experience with the **<PROGRAM>?**
1. [OPEN END]
77. Not applicable
DK
REF

F6. Using the same scale from 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied", how would you rate Xcel Energy as an energy provider?
1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
DK
REF

CLOSING

CLOSE1. These are all the questions I have. As a thank you for your input, we'd like to send you $25. Let me ask the information we need to email the gift card to the intended recipient—this could be you, personally, or anyone else of your choosing:
[COLLECT CONTACT INFORMATION]

B.3 NEAR-PARTICIPANT SURVEY INSTRUMENT

INTRODUCTION

To support the process and impact evaluation of the 2018 Xcel Energy energy efficiency programs, the EMI Consulting evaluation team will conduct telephone surveys with near-participants. The evaluation team defined a near-participant as any customer for whom a CO Motor and Drive Efficiency project opportunity was identified between November 2011 and March 2017, but who did not follow through with that opportunity. The research will be conducted to assess key process and impact evaluation objectives, including customer satisfaction, product awareness, barriers to participating, and spillover.

The remainder of the introduction provides the research questions which the near-participant survey is designed to address, a description of the sample population and the target completes, a description of the sample variables to support programming the survey, and fielding instructions for the survey house.

Evaluation Objectives

The objectives for the CO Motor Efficiency product evaluation are to:

- Assess customer and trade partner awareness and perceptions of motors and drives technology.
- Characterize key barriers in the customer decision-making process related to motors and drives purchases: What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Assess trade partner experiences: How can trade partners be motivated to sell more motors and drives? What current activities are working well to motivate trade partners? How can Xcel Energy make sure all eligible units are being submitted for rebates? What are trade partners experiences surrounding Motor & Drive Efficiency Product electronic applications?
- Assess trade partner interest in bonuses: Would trade partner bonuses inspire trade partners to participate more frequently in the product? Which bonus structures do trade partners prefer?
- Assess interest in additional customer bonuses versus financing: Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?
- Estimate a NTG ratio documenting the product's influence on customers' decisions.
- Identify major drivers of free ridership.
- Assess market effects of the Motor & Drive Efficiency Product.
- Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.

The near participant survey does not address every evaluation objective. For reference, the following table provides the evaluation efforts used for each objective.

Table 9: Motors and Drives Evaluation Objectives

Evaluation Objective	Impact or Process Objective	Research Activity	Near-Participant Survey Objective
Estimate a NTG ratio documenting the product's influence on customers' decisions.	Impact	Participant surveys, near-participant surveys, and trade partner interviews	✓
Identify major drivers of free ridership.	Impact	Participant surveys	
Assess market effects of the Motor & Drive Efficiency Product.	Impact	Trade partner interviews	
Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.	Process	Participant surveys, near-participant surveys, and trade partner interviews	✓
Assess customer and trade partner awareness and perceptions of motors and drives technology.	Process	Trade partner interviews, participant interviews	
Characterize key barriers in the customer decision-making process related to motors and drives purchases.	Process	Near-participant surveys and trade partner interviews	✓
Assess trade partner experiences.	Process	Trade partner interviews	
Assess trade partner interest in bonuses.	Process	Trade partner interviews	
Assess interest in additional customer bonuses versus financing.	Process	Near-participant surveys	✓

Specific research questions which this near- participant survey is designed to address are the following:

- What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed

projects if they could get financing options? Which would have a greater impact on their participation?
- Does the program influence additional energy savings OUTSIDE of what is captured through the program (spillover)?
- What are the market effects of the program?

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

Table 10: Evaluation Objective, Research Question, and Survey Question Crosswalk

Evaluation Objective	Research Question	Survey Question Number(s)
Estimate a NTG ratio documenting the product's influence on customers' decisions.	Assess impact of the product on customer decisions to install efficient motors and drives	A1-A3c, S3-S4b, A3d-A3n
Understand customer and trade partner and satisfaction and experience with the product and with Xcel Energy as an energy provider.	Are customers satisfied with Xcel Energy as an energy provider?	B2-B7a, D1-D2
Characterize key barriers in the customer decision-making process related to motors and drives purchases.	What are the most common barriers for adoption and how can Xcel Energy overcome them?	C1
Assess interest in additional customer bonuses versus financing.	Would near-participating customers have completed projects if they were provided a bonus? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?	C2-C8

Sample Population and Target Completes

The following table provides the sample population and the target completes based on data provided to the evaluation team in April 2019. The evaluation team defined a near-participant as any customer for whom a CO Motor and Drive Efficiency project opportunity was identified between November 2011 and March 2017, but who did not follow through with that opportunity. The population was established from the unique set of respondents in the Salesforce opportunity data (based on either account number or customer name, depending on the nature of the

customer). In addition, customers who were part of the participant sample were excluded from the near-participant sample (roughly 46 customers). Customers were binned by the type of equipment listed in their unpursued opportunity.

Table 11: Sample Population and Target Completes by Strata

Population	Population	Target Completes	Response Rate for Statistically Significant Results
VFD Opportunity Not Pursued	87		
At Least One Other Non-VFD Opportunity Not Pursued	60		
	147	**60**	**41%**

Sample Variables

The following table include the sample variables that will be used to conduct this survey, as well as descriptions of these variables and potential codes.

Table 12: Sample Variables

Sample Variable	Variable Description	Potential Codes
Interviewer Name	Name of interviewer from Ewald and Wasserman	e.g. Nicole Thomas
Organization	Organization name	e.g. EMI Consulting
Contact	Contact at organization	e.g. Robert Saul
Month	Month customer opportunity logged into the system that was not pursued.	e.g. January
Year	Year customer opportunity logged into the system that was not pursued.	e.g. 2017
Opportunity_Description	Short description of customer opportunity logged into the system that was not pursued.	e.g. "8 VFDs"
Phone	Phone number for contact at organization	e.g. 555-555-5555

Sample Variable	Variable Description	Potential Codes
Managed_Account	A flag for those customers who have an assigned account manager.	e.g. "Yes", "No"
Acct_Manager	Customer has an account manager.	e.g. "Yes", "No"
BSR	Customer does not have an account manager, but instead is managed by a Business Solutions Center Representative	e.g. "Yes", "No"

Fielding Instructions

- Attempt each record 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.
- The survey is considered complete when CLOSE1 is answered.
- After the survey fielding subcontractor (Ewald and Wasserman) completes 5 interviews, hold calling and output a preliminary SPSS dataset and recordings of the pretest interviews. Resume calling after EMI Consulting checks the data (usually with 1-2 working days).
- Monitor at least 10 percent of the interviews to ensure proper interview protocols (e.g., reading questions verbatim, proper probing, accurate data entry).
- Calling hours are 9 AM to 5 PM MDT.

SURVEY SECTIONS

- **Intro.** Introduction and Screening
- **A.** Firmographics and Participation
- **S.** Spillover
- **B.** Awareness and Perceptions
- **C.** Barriers to Participation
- **D.** Satisfaction
- **CLOSE:** Closing

SURVEY

Section Intro: Introduction and Screening

Intro1. Hello, this is **<INTERVIEWER NAME>** calling from Ewald and Wasserman, a national research firm working with Xcel Energy. This is not a sales call. I'm hoping to speak to someone at your organization who is familiar with the decision to purchase and install motor or drive equipment**.**

Are you the person at **<ORGANIZATION>** who is most familiar with the decision to purchase and install motor or drive equipment, or at least as familiar as anyone else there?
1. Yes.
2. No, they are not available right now.
3. No, that's someone else.
DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO1=2-3]
Intro4. What is this person's name?
1. **[RECORD NAME AS <CONTACT>]**
DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO1=3]
Intro5. Do you know if **<CONTACT>** is available to speak at the moment?
1. Yes
2. No
98. DK **[TERMINATE]**
99. REF **[TERMINATE]**

[ASK IF INTRO1=3]
Intro6. Can you connect me with **<CONTACT>**?
1. Yes **[RESTART AT INTRO1]**
2. No
98. DK **[TERMINATE]**
99. REF **[TERMINATE]**

[ASK IF INTRO1 = 2 OR INTRO5 = 2 OR INTRO6 = 2]
Intro7. When would be a better time to reach **<CONTACT NAME>**?
1. [OPEN END]
98. DK **[TERMINATE]**
99. REF **[TERMINATE]**

[ASK IF INTRO7=1]
Intro8. Would I reach that person by dialing the same number I used to connect with you: **<PHONE>**?
1. Yes
2. No, use a different number (RECORD HERE AS **<PHONE>**) **[THANK AND TERMINATE]**
DK **[TERMINATE]**
REF **[TERMINATE]**

[ASK IF INTRO1=1]
Intro9. Great! (IF NEEDED: Again, we're Ewald and Wasserman, a national research firm calling on behalf of Xcel Energy). I would like to invite you to participate in a short survey that will help Xcel Energy improve the Motor and

Drive Efficiency program to best suit the needs of businesses like yours. The survey takes about 15 minutes on average, and as a small token of appreciation, we are offering a $25 gift card that you will receive after completing the survey. Your responses will remain confidential, meaning that your name and company name will not be attributed to your answers.

Is now a good time or should we call you back?

1. No objection – fine to continue
2. Objection **[RESOLVE AND RESCREEN AS NECESSARY]**
REF **[TERMINATE]**

Section A: Firmographics and Participation

First, I'd like to gather some information your role at your organization.

[ASK ALL]
A1. What is your occupational title within your company? **(ASK OPEN END, PROBE FOR SPECIFICS / VERIFY SELECTION AS NEEDED)**
9. Facilities Manager
10. Energy Manager
11. Proprietor / Owner
12. Other facilities management / maintenance position
13. Other manager / assistant manager
14. President / CEO
15. Chief Financial Officer
16. Vice President / Director / Assistant Director / Department Head
9. Other _____
99. Prefer not to answer
DK

[ASK ALL]
A1a. Which of the following best describes your line of business? (DO NOT READ. ASK OPEN END.)
1. Accommodation and food services
2. Administrative and support and waste management and remediation services
3. Agriculture, forestry, fishing, and hunting
4. Arts, entertainment, and recreation
5. Construction
6. Educational services
7. Finance and insurance
8. Health care and insurance
9. Information
10. Management of companies and enterprises
11. Manufacturing
12. Mining
13. Other services (except public administration)

14. Professional, scientific, and technical services
15. Public administration
16. Real estate and rental and leasing
17. Retail trade
18. Transportation and warehousing
19. Utilities
20. Wholesale trade
99. Prefer not to answer
98. DK

[ASK ALL]

A1aa. Our records show that you discussed purchasing and installing **<OPPORTUNITY_DESCRIPTION>** with either an Xcel Energy representative or with a contractor some time on or around **<MONTH>** of **<YEAR>**. Do you recall the discussion to purchase and install this equipment?

1. Yes
2. No
98. DK
99. REF

[ASK IF A1aa = 1 OR 2 OR 98]

A1b. Did you eventually purchase the **<OPPORTUNITY_DESCRIPTION>**?

1. Yes (SKIP TO A1f)
2. No
98. DK (skip to A3)
99. REF (skip to A3)

[ASK IF A1b = 2]

A1c. Did you purchase other equipment instead of the **<OPPORTUNITY_DESCRIPTION>**?

1. Yes
2. No (SKIP TO A1e)
98. DK (skip to A3)
99. REF (skip to A3)

[ASK IF A1c = 1]

A1d. Is this equipment more energy efficient, less energy efficient, or approximately the same efficiency as the **<OPPORTUNITY_DESCRIPTION>**?

1. More energy efficient (SKIP TO A1f)
2. Less energy efficient (skip to A1f)
3. approximately the same efficiency as the **<OPPORTUNITY_DESCRIPTION>** (SKIP TO A1f)
98. DK (skip to A3)
99. REF (skip to A3)

[ASK IF A1c = 2]
A1e. Why did you decide not to purchase the **<OPPORTUNITY_DESCRIPTION>** or similar equipment?
1. [OPEN-END] [Skip to A3]
98. DK [Skip to A3]
99. REF [Skip to A3]

[ASK IF A1b = 1 OR A1d = 1,3]
A1f. Did you eventually install the equipment you purchased?
1. Yes
2. No (Skip to A1gg)
98. DK (skip to A3)
99. REF (skip to A3)

[ASK IF A1f = 1]
A1ff. Did you receive a rebate through Xcel Energy for installing this equipment?
1. Yes (skip to A1h)
2. No
98. DK (skip to A3)
99. REF (skip to A3)

[**ASK IF A1ff = 2]**
A1g. Why didn't you receive a rebate through Xcel Energy for installing this equipment?
1. [OPEN-END]
98. DK
99. REF

[ASK IF A1f = 2]
A1gg. At what point will you install the equipment you purchased?
1. When other equipment burns out [skip to A3]
2. Other: [OPEN-END] [skip to A3]
98. DK [skip to A3]
99. REF [Skip to A3]

[ASK IF A1ff = 1 OR A1ff = 2]
A1h. Please describe the equipment you purchased and installed.
1. [OPEN-END]
98. DK
99. REF

[ASK IF A1ff = 1 OR A1ff = 2]
A1i. Approximately how many of each of the following motor and drive types did you install? How many…
1. [NUMERIC OPEN END]
98. DK
99. REF

A1i_1. Efficient motors
A1i_2. Permanent magnet alternating current (P-MAC) motors
A1i_3. Variable Frequency Drives (V-F-Ds)
A1i_4. Any other <**SPECIFY**>

[ASK IF A1ff = 1 OR A1ff = 2]

A1j. What was the horsepower of the…

1. [NUMERIC OPEN END]
98. DK
99. REF

A1j_1. Efficient motors
A1j _2. Permanent magnet alternating current (P-MAC) motors
A1j _3. Variable Frequency Drives (V-F-Ds)
A1j _4. A1i4
DK
REF

[ASK IF A1ff = 1 OR A1ff = 2]

A2. Thinking about all of the reasons you chose to install the energy efficient equipment, did your knowledge of the rebates or resources available through Xcel Energy have ANY INFLUENCE on your decision to install the energy efficient equipment?

1. Yes
2. No (SKIP TO A3)
98. DK (SKIP TO A3)
99. REF (SKIP TO A3)

[ASK IF A2=YES]

A2a. Using a scale of 0 to 10, where 0 is not at all influential and 10 is extremely influential, how much influence did your knowledge of the rebates or resources available through Xcel Energy have on your decision to install your energy efficient equipment? [NUMERIC OPEN END, 0 – 10, 88=DK, 99=REF]

[ASK IF A2=YES]

A2b. Just to make sure that we understand you correctly, please answer the following hypothetical question. If you had you NOT known about rebates or resources available through Xcel Energy, would you still have installed your energy efficient energy efficient equipment? Please use a scale of 0 to 10, where 0 means you definitely WOULD NOT have installed your energy efficient equipment and 10 means you definitely WOULD have done so. [NUMERIC OPEN END, 0 – 10, 88=DK, 99=REF]

[ASK IF A2=YES]

A2c. In your own words, can you explain HOW your knowledge of the rebates or resources available through Xcel Energy influenced your decision to purchase or install your energy efficient equipment? [OPEN-END, 88=DK, 99=REF]

[ASK ALL]

A3. Have you installed any other motor or drive equipment over the past 3 years?

1. Yes
2. No (SKIP TO B2)

98. DK (SKIP TO B2)

99. REF (SKIP TO B2)

[ASK IF A3 = Yes]

A3a. Would any of this equipment be classified as energy efficient equipment?

1. Yes
2. No (SKIP TO B2)98. DK (SKIP TO B2)
99. REF (SKIP TO B2)

[ASK IF A3a = Yes]

A3aa. Did you receive a rebate through Xcel Energy for installing **all** of this energy efficient equipment?

1. Yes (SKIP TO B2)
2. No (INTERVIEWER NOTE: includes those receiving rebates for some of the equipment)

98. DK (SKIP TO B2) 99. REF (SKIP TO B2)

[ASK IF A3aa = No]

A3b. Please describe the energy efficient equipment.

1. [OPEN-END]
98. DK
99. REF

[ASK IF A3aa = No]

A3c. When did you install this equipment?

1. [OPEN-END]
98. DK
99. REF

[ASK IF A3aa = No]

S3. What type of energy-efficient Motors or Drives equipment did you install? For example, was it… LIST ALL TYPES, ALLOW MULTIPLE]

1. Efficient motors
2. Permanent magnet alternating current (P-MAC) motors
3. Variable Frequency Drives (V-F-Ds)
4. Or something else? **<SPECIFY>**

DK [skip to B2]
REF [Skip to B2]

[ASK IF S3=1-4, ELSE SKIP TO B2]

S4a. Approximately how many of each type did you install? How many… [READ TYPES LISTED IN S3]

1. [NUMERIC OPEN END]

98. DK
99. REF

S4a_1. Efficient motors
S4a_2. Permanent magnet alternating current (P-MAC) motors
S4a_3. Variable Frequency Drives (V-F-Ds)
S4a_4. <SPECIFY>

[ASK IF S3=1-4, ELSE SKIP TO B2
S4b. What was the horsepower of the… [READ TYPES LISTED IN S3]
1. [OPEN END]
98. DK
99. REF

S4b_1. Efficient motors
S4b_2. Permanent magnet alternating current (P-MAC) motors
S4b_3. Variable Frequency Drives (V-F-Ds)
S4b_4. <SPECIFY>

[CALCULATE SO_COUNT = S4a_1 + S4a_2 + S4a_3 + S4a_4]

[ASK IF S3 1-4]
A3d. Did you receive a rebate through the Xcel Energy motor and drive program for **[SHOW IF SO_COUNT > 1:** ANY OF**]** the equipment you installed?
1. Yes
2. No (Skip to A3k)
98. DK (Skip to A3k)99. REF (Skip to A3k)

[ASK IF A3d = YES AND SO_COUNT > 1]
A3e. For which energy-efficient motors and drive equipment did you receive a rebate through Xcel Energy?
1. Efficient motors
2. Permanent magnet alternating current (P-MAC) motors
3. Variable Frequency Drives (V-F-Ds)
4. Or something else? **<SPECIFY>**
DK
REF

A3k. Thinking about all of the reasons you chose to install the energy efficient equipment we just discussed, did your knowledge of the rebates or resources available through Xcel Energy have ANY INFLUENCE on your decision to install the energy efficient equipment?
1. Yes
2. No (Skip to B2)
98. DK (Skip to B2)
99. REF (Skip to B2)

[ASK IF A3k=YES]

A3l. Using a scale of 0 to 10, where 0 is not at all influential and 10 is extremely influential, how much influence did your knowledge of the rebates or resources available through Xcel Energy have on your decision to install your energy efficient equipment? [NUMERIC OPEN END, 0 – 10, 88=DK, 99=REF]

[ASK IF A3k=YES]

A3m. Just to make sure that we understand you correctly, please answer the following hypothetical question. If you had you NOT known about rebates or resources available through Xcel Energy, would you still have installed your energy efficient energy efficient equipment? Please use a scale of 0 to 10, where 0 means you definitely WOULD NOT have installed your energy efficient equipment and 10 means you definitely WOULD have done so. [NUMERIC OPEN END, 0 – 10, 88=DK, 99=REF]

[ASK IF A3k=YES]

A3n. In your own words, can you explain HOW your knowledge of the rebates or resources available through Xcel Energy influenced your decision to purchase or install your energy efficient equipment? [OPEN-END, 88=DK, 99=REF]

Section B: Awareness/Perceptions

Next, I'd like to understand a little more about your awareness of Xcel Energy energy efficiency programs.

[ASK ALL]

B2. On a scale of 0 to 10, with 0 being unfamiliar and 10 being very familiar, how familiar would you say you are with Xcel Energy's energy efficiency rebate programs? [NUMERIC OPEN END, 0 – 10, 88=DK, 99=REF]

[ASK ALL]

B4. And how did you become aware of Xcel Energy's rebates for Motors and Drives equipment? (DO NOT READ. ASK OPEN END, SELECT ALL THAT APPLY)

1. Contractor
2. Distributor, vendor, or electrical mechanical contractor
3. Xcel Energy staff
4. Xcel Energy account manager
5. Xcel Energy website or other promotional materials (TV, mass media ads)
6. Xcel Energy event, expo, or demonstration
7. Xcel Energy marketing materials or flyer
8. Another business / word of mouth
9. Someone at my business
10. Online (not Xcel Energy)
11. Social media (e.g. Facebook, Twitter, LinkedIn)
12. Television advertisement
13. Through participation in another Xcel Energy program
14. Other _____
98. DK
99. REF

[ASK ALL]

B6. On a scale from 1 to 5, where 1 is "strongly disagree" and 5 is "strongly agree", to what extent do you agree with the following statement: I regularly see advertising for Xcel Energy energy efficiency rebate programs.

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
98. DK
99. REF

[ASK ALL]

B7. Have you ever been contacted directly by someone from Xcel Energy regarding energy efficiency rebate opportunities?

1. Yes
2. No (Skip to C1)
98. DK (Skip to C1) 99. REF (Skip to C1)

[If B7 = Yes]

B7a. Approximately how many times have you been contacted from someone at Xcel Energy regarding energy efficiency opportunities?

1. Once
2. Two to three times
3. Four to five times
4. More than five times, Specify: _____
98. DK
99. REF

C. Barriers to Participation

[ASK ALL]

C1. On a scale from 1 to 5, where 1 is "not at all a challenge" and 5 is "very much a challenge", please indicate the extent to which you see the following as a challenge to participating in Xcel Energy energy efficiency rebate programs:

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
98. DK
99. REF

[RANDOMIZE, ANCHOR C1pLAST]

C1a. Lack of knowledge about Xcel Energy energy efficiency programs
C1b. Lack of knowledge regarding equipment cost
C1c. Lack of knowledge regarding eligibility for Xcel Energy energy efficiency programs
C1d. Lack of knowledge regarding rebate amounts
C1e. Amount of time it takes to install equipment
C1f. Amount of time it takes to get audit
C1g. Upgrades are not relevant to my facility
C1h. Our organization's management or corporate approval process
C1i. Finding a trustworthy contractor to perform equipment installations
C1j. Amount of paperwork
C1k. Program requirements
C1l. Equipment cost
C1m. Payback periods for my business

C1n. Your company's budget cycle
C1o. Existing long-term capital improvement plans or competing budget priorities
C1p. Is there any other factor that you see as a challenge to participating in Xcel Energy energy efficiency rebate programs?

1. Yes, specify (C1p_OTH)
2. No (Skip to C2)
98. DK (Skip to C2)
99. REF (Skip to C2)

C1p_1. On a scale from 1 to 5, where 1 is "not at all a challenge" and 5 is "very much a challenge", please indicate the extent to which you see [C1p_OTH] as a challenge to participating in Xcel Energy energy efficiency rebate programs.

[RANDOMLY SPLIT RESPONDENTS INTO TWO GROUPS (GROUP = 1 or GROUP = 2). GENERATE NEW VARIABLES "Option_1" AND "Option_2".

FOR RESPONDENTS IN GROUP 1, Option_1 = "to help customers secure low-interest financing through a trusted lender.",

FOR RESPONDENTS IN GROUP 2, Option_1 = "to provide customers with a $50 bonus for completing rebated projects within the calendar year. This bonus is in addition to the rebate you would receive for motor and drive equipment."

FOR RESPONDENTS IN GROUP 1, Option_2 = "to provide customers with a $50 bonus for completing rebated projects within the calendar year. This bonus is in addition to the rebate you would receive for motor and drive equipment.",

FOR RESPONDENTS IN GROUP 2, Option_2 = "to help customers secure low-interest financing through a trusted lender."]

C2. Xcel Energy is testing strategies to encourage participation in the Motor and Drive Efficiency program. One strategy is <Option_1>.

On a scale from 1 to 5, where 1 is not at all influential and 5 is very influential, how influential would this strategy be to encourage your participation in the program?
1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
98. DK
99. REF

[ASK IF C2 < 77]
C3. Why did you rate it this way?

C4. Another strategy is <Option_2>.

On a scale from 1 to 5, where 1 is not at all influential and 5 is very influential, how influential would this strategy be to encourage your participation in the program?
1. [NUMERIC OPEN END, 1 – 5]

77. Not applicable
98. DK
99. REF

[ASK IF C4 < 77]
C5. Why did you rate it this way?

[ASK IF (GROUP = 1 AND C2 = 1-5 AND C4 = 1-5 AND C2 > C4) OR (GROUP = 2 AND C2 = 1-5 AND C4 = 1-5 AND C4 > C2)]
C6. You rated "helping customers secure low-interest financing through a trusted lender" as more influential than "providing customers with a $50 bonus for completing rebated projects within the calendar year". Is that correct?
1. Yes
2. No **[GO BACK TO C2]**
98. DK
99. REF

[ASK IF (GROUP = 1 AND C2 = 1-5 AND C4 = 1-5 AND C4 > C2) OR (GROUP = 2 AND C2 = 1-5 AND C4 = 1-5 AND C2 > C4)]
C7. You rated "providing customers with a $50 bonus for completing rebated projects within the calendar year" as more influential than "helping customers secure low-interest financing through a trusted lender". Is that correct?
1. Yes
2. No **[GO BACK TO C2]**
98. DK
99. REF

[SKIP IF (C6 = 98 OR C6 = 99) AND (C7 = 98 OR C7 = 99)]
C8. Why did you rate the strategies that way?
1. [OPEN END]
98. DK
99. REF

SECTION D: SATISFACTION

[ASK ALL]
Thank you for your patience; we have only a few questions left.

D1. How frequently do you speak with **[IF <ACCT MANAGER> = YES:** an account manager**]** **[IF <BSR> = YES:** a business solution representative**]** about energy efficiency opportunities at your business?
1. Never
2. About once a year
3. About once every 9 months
4. About once every 6 months
5. About once every 3 months
6. About once a month
98. DK
99. REF

[ASK ALL]

D2. I'm going to ask you to rate your satisfaction with various aspects of Xcel Energy. For each, please rate your satisfaction on a scale from 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied", or let me know if it is not applicable to your company. How would you rate your satisfaction with: **[RANDOMIZE, PAUSE AFTER EACH FOR RATING, REPEAT SCALE IF NECESSARY]**

1. [NUMERIC OPEN END, 1 – 5]
77. Not applicable
98. DK
99. REF

(RANDOMIZE)

D2a. Xcel Energy as an energy provider.

[ASK IF D1 > 1 AND < 98] D2b. Your interactions with your account manager or business solutions representative.

[ASK IF B4 = 13] D2c Your participation in other Xcel Energy energy efficiency programs.

[For any D2 < 3]

D3a – D3c. Why weren't you satisfied with **<RESTORE QUESTION WORDING FROM D2a – D2c>**

_____

Closing

CLOSE1. These are all the questions I have. As a thank you for your input, we'd like to send you $25. Let me ask the information we need to email the gift card to the intended recipient—this could be you, personally, or anyone else of your choosing:

[COLLECT CONTACT INFORMATION]

B.4 TRADE PARTNER INTERVIEW GUIDE

To support the process and impact evaluation of the 2018 Xcel Energy efficiency programs, members of the EMI Consulting evaluation team are conducting in-depth telephone interviews with Trade Partners. This guide presents the questions to be covered in the in-depth interviews of trade partners who have participated in the Colorado Motors and Drives Efficiency Product.

The evaluation team plans to interview 20 trade partners as part of this effort, as shown in Table 13. The evaluation team plans to select up to 10 trade partners as a follow-up to the participant interviews. These trade partners will be selected for customers who said the trade partner was highly influential on their project but exhibited high free-ridership in other questions. For these trade partners, the evaluation team will look to identify the Product's influence on their business practices and will use this qualitative information to directly adjust the free-ridership scores for the customers they worked with. The remaining 10 trade partners will be split between high- and low-participating VFD and motors trade

partners; the exact number of trade partners in each group will be set after receiving trade partner data from product staff.

Table 13. Motor Efficiency Trade partner Target Interviews, by Interview Strata

Trade Partner Type	Strata	Population	Target Interviews
Trade partners	Survey follow-ups	TBD	10
	Highly active	TBD	5
	Less active	TBD	5
	Total	TBD	20

The remainder of the introduction provides the research questions which this guide is designed to address and fielding instructions for the interviewers.

EVALUATION OBJECTIVES

The objectives for the Colorado Motor and Drive Efficiency Product evaluation are to:

- Assess customer and trade partner awareness and perceptions of motors and drives technologies.
- Characterize key barriers in the customer decision-making process related to motors and drives purchases: What are the most common barriers for adoption and how can Xcel Energy overcome them?
- Assess trade partner experiences: How can trade partners be motivated to sell more motors and drives? What current activities are working well to motivate trade partners? How can Xcel Energy make sure all eligible units are being submitted for rebates? What are trade partners' experiences surrounding Motor & Drive Efficiency Product electronic applications?
- Assess trade partner interest in incentives: Would trade partner incentives inspire trade partners to participate more frequently in the product? How might trade partners use the incentive?
- Assess interest in additional customer incentives versus financing: Would near-participating customers have completed projects if they were provided an incentive? Would near-participating customers have completed projects if they could get financing options? Which would have a greater impact on their participation?
- Understand customer and trade partner satisfaction and experience with the product and with Xcel Energy as an energy provider.
- Estimate a NTG ratio documenting the product's influence on customer decisions

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

Table 14. Motors and Drives Evaluation Objectives

Evaluation Objective	Impact or Process Objective	Research Activity	Trade Partner Interview Objective
Estimate a NTG ratio documenting the product's influence on customers' decisions.	Impact	Participant surveys, near-participant surveys, and trade partner interviews	✓
Identify major drivers of free ridership.	Impact	Participant surveys	
Assess market effects of the Motor & Drive Efficiency Product.	Impact	Trade partner interviews	✓
Understand customer and trade partner satisfaction and experience with the product and with Xcel Energy as an energy provider.	Process	Participant surveys, near-participant surveys, and trade partner interviews	✓
Assess customer and trade partner awareness and perceptions of motors and drives technologies.	Process	Trade partner interviews, participant survey	✓
Characterize key barriers in the customer decision-making process related to motors and drives purchases.	Process	Near-participant surveys and trade partner interviews	✓
Assess trade partner experiences.	Process	Trade partner interviews	✓
Assess trade partner interest in incentives.	Process	Trade partner interviews	✓
Assess interest in additional customer incentives versus financing.	Process	Near-participant surveys	

The evaluation team will utilize trade partner interviews to meet both process and impact objectives. These interviews are integral for the following six evaluation objectives: perceptions/awareness, customer decision-making and barriers, product experience/satisfaction, use of new product features, trade partner incentives, and NTG impacts.

- **Perceptions/Awareness:** The evaluation team will assess trade partner perceptions and awareness of motors and drives technologies to better understand how this may help or hinder greater product participation from trade partners and their customers.
- **Customer Decision-Making and Barriers**: The evaluation team will discuss the tools trade partners find most helpful in motivating customers to purchasing motors and drives equipment, as well as any barriers they experience.
- **Product Experience/Satisfaction**: The evaluation team will discuss trade partners' product experience, including the application process, and where opportunities may exist to facilitate greater participation.
- **Use of New Product Features:** The evaluation team will explore how often trade partners utilize new features of the Motor & Drive Efficiency product such as financing options through Xcel Energy partners, electronic applications, and use of resources from the Motor & Drive Efficiency website
- **Trade Partner Incentives:** The evaluation team will explore interest in various trade partner incentive mechanisms and compare the importance of incentives in encouraging additional Motor & Drive Efficiency Product participation versus other Product components.
- **NTG**: Finally, the team will ask questions on program attribution, or the impact the program had on their decision to recommend motors and drives technologies because of the Xcel Energy motors and drives program. The evaluation team will discuss how the program impacts their product recommendations as a whole.

Table 15 presents the link between each evaluation objective, research question, and interview question.

Table 15. Interview Questions by Research Question Addressed

Evaluation Objective	Research Question	Interview Question Number(s)

Perceptions / Awareness	Assess trade partner perceptions and awareness of motors and drives technologies	B1; E5-E13
Customer Decision-Making and Barriers	What are the most common barriers for adoption and how can Xcel Energy overcome them?	C1; D1-D5; E1, E4, E13
Product Experience / Satisfaction	How can trade partners be motivated to sell more motors and drives?	G1-G3; A1-A6; E1-E2
Product Experience / Satisfaction	How can Xcel Energy make sure all eligible units are being submitted for rebates?	D5; E2
Product Experience / Satisfaction	What are trade partners' experiences surrounding Motor & Drive Efficiency Product electronic applications?	D7c
Product Experience / Satisfaction	What current activities are working well to motivate trade partners?	C1; G1
Product Experience / Satisfaction	Experience and satisfaction with Xcel Energy as an energy provider	G1-G3
Use of New Product Features	How often do trade partners use new Product features such as financing through Xcel Energy partners, electronic applications, and use of resources from the Motor and Drive Efficiency website?	D6-D9
Trade Partner Incentives	Would trade partner incentives inspire trade partners to participate more frequently in the product?	C4
Trade Partner Incentives	How might trade partners use the incentive?	C2-C3
Net-to-gross	Assess impact of the product on customer decisions to install efficient motors and drives	D2, D4, F1-F3

FIELDING INSTRUCTIONS

We will attempt to schedule interviews via email if email addresses are available. We will supplement email recruiting efforts with telephone calls as needed.

The following fielding guidelines should be used for trade partner recruiting and interviews:

- Attempt to reach each trade partner 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 5 PM CST.
- Record interviews
- Definitions:

  COMPANY NAME = Update COMPANY NAME with Trade Partner's company name

TELEPHONE RECRUITING DIALOG/MESSAGE SCRIPT

[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 Motor and Drive Efficiency Program to learn how Xcel Energy can improve this program. May I please speak with <CONTACT> or the person most familiar with your company's participation in Xcel Energy's Motor and Drive Program?

[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 Motor and Drive Efficiency Program. I'd appreciate the opportunity to schedule a quick half-hour interview with you to discuss your experience. This is the best opportunity you will have to influence the program's design. 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

Hello _____,
I work for EMI Consulting, an independent third-party contractor hired by Xcel Energy to evaluate their Motor and Drive Efficiency Program. I am contacting professionals that have worked on projects in the Xcel Energy Motor and Drive Efficiency Program to learn how Xcel Energy can improve their program. Regardless of how many projects you've completed through the Motors and Drives Program, I'd appreciate the opportunity to schedule a quick half-hour interview with you to discuss your experience. This is the best opportunity you will have to influence the program's design. We are offering a $50 incentive as a thank you for your time. Below I have listed available times 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.

[LIST TIMES AVAILABLE FOR INTERVIEW]

INTERVIEW

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**.]

A4. What types of customers does COMPANY NAME typically serve? [**PROBE:** In general, do you serve commercial, residential, multifamily?]

(POTENTIAL FOLLOW-UP QUESTIONS)

a. Has this changed over time?

b. [**IF YES:**] Has your company's participation in Xcel Energy's Motors and Drives Program influenced any changes in the services you deliver or the customers you serve?

New1. How many employees does your company have?

New2. What is your company's annual revenue?

Section B: Awareness of Program

B1. How did you initially learn about opportunities to participate in the Motors and Drives Program?

a. Is this your preferred method for hearing about opportunities?

b. What are other ways that you like to hear about Xcel Energy Trade Partner opportunities?

c. What program information was most useful for you when deciding to participate in the Motors and Drives Program? [**PROBE:** incentive levels, materials, application process]

SECTION C: MOTIVATIONS/BARRIERS TO BE A TRADE PARTNER

C1. What is the main reason you have chosen to complete projects through Xcel Energy's Motors and Drives Program?

a. Have your motivations/reasons changed over the years?

b. If yes, how so?

C2. As of 2019, Xcel Energy has partnered with local financial institutions to provide financing proposals to the trade partner based on project information. These proposals can be received through a simple application process for program-incentivized projects.

The program also currently provides: [RANDOMIZE]
- Marketing to customers
- Support for rebate applications
- Online rebate applications
- Awards for high-performing trade partners
- Support from the Trade Partner manager, Bob Macauley
- Events discussing changes to the program

In addition, program staff are considering the trade partner incentive. How would you rank the importance of each of these activities? (IF NEEDED: including the trade partner incentive, create a ranked list, from 1 to [END NUMBER].)

C3. If the program were to begin offering a trade partner incentive for projects completed through the program, how would you use that incentive? [PROBE FOR PASSING TO CUSTOMER, TRAINING STAFF ON HIGHER EFFICIENCY EQUIPMENT, SALES SPIFF FOR SELLING HIGHER EFFICIENCY AND VALUE EQUIPMENT, PROMOTION OF OFFERINGS, ADD TO GENERAL REVENUE)

a. Why would you use it in that way?

C4. Would a trade partner incentive increase your participation in the Motor & Drive Efficiency program?

SECTION D: TRADE PARTNER MARKETING

D1. What sales techniques do you use to attract new motors and drives customers? [**PROBE**: brochures, cold calls, ads, door to door]

D2. At what point in the project do you talk to your customers about the Motors and Drives Program?

D3. What do you think motivates customers to participate?

a.

D4. Do rebates/incentives ever come up in sales discussions with customers?

[**IF YES**:]

a. When in the conversation are rebates/incentives typically mentioned [**PROBE:** introduction, discussion of costs, etc.]?

   i. Who typically brings up rebates/incentives [**PROBE:** customer or trade partner]?

b. when customers are deciding to fund a project?

   i. To what extent does discussing rebates/incentives help or hurt the sale?

c. Are there ever instances when you don't mention rebates/incentives during sales discussions with customers?

   i. When?

   ii. What are the reasons why?

D5. Have you ever sold any eligible projects to Xcel Energy customers without using the incentives/rebates as a sales tool?

a. What are the reasons why?

D6. How do you receive updates about the program? {PROBE FOR REGISTRATION ON TRADE PARTNER WEBSITE}

a. Is there anything else Xcel Energy could do to improve communication about program updates?

D7. Have you ever used the Xcel Energy online application?

a. On a scale from 1 to 5, where 1 is very rarely and 5 is very often, how often do you use the electronic rebate application?

   i. [IF 1 OR 2} Why do you rarely use the electronic application?

b. What are the benefits of the electronic rebate application?

c. Have you had any issues using the electronic application?

   i. [IF YES] What were they?

D8. Have you used any of the resources from the Motor and Drive Efficiency website? If yes, how often do you use them?

D9. (IF APPLICABLE) Have you ever helped customers apply for financing through an Xcel Energy partner? If yes, how often have you used this service?

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

E1. 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.

a. How much do you do versus how much does the customer do?

b. Is it you or the customer who completes the rebate application?

c. Can you please describe the rebate application process? [**PROBE** for satisfaction with application process and opportunities to improve]

d. Generally, do rebates go directly to customers or are they sent to you?

e. **[IF DIRECTLY TO CUSTOMERS]** What prevents you from fronting rebates for customers? (Probe for timing of rebate)

   i. **[If timing of rebate receipt is a barrier]** What would be a reasonable timeline to receive the rebate, from invoice verification of the final application to receiving the rebate?

E2. Repeat the following set of questions for motors, and then for drives.

(IF PARTICIPATED MORE THAN ONE YEAR) About how many {MOTORS / DRIVES] projects do you submit per year, on average?

a. Thinking back to 2018, would you say your involvement increased, decreased, or stayed the same compared with previous years?

   i. [**PROBE:** Would you say the number of projects you have completed through the program increased, decreased or stayed the same?]

   ii. [**PROBE:** Would you say the size/scope of projects you have completed through the program increased, decreased or stayed the same?]

b. [**IF INCREASE/ DECREASE**:] What are the reasons why your involvement has increased/decreased?

E3a. What can Xcel Energy do to increase your participation?

E3b. Are there (other) challenges related to selling energy efficient motors? What about drives?

E4. What messages resonate best with customers when selling motors equipment? What about drives equipment?

E5. What, if anything, about the program keeps you from participating more?

Xcel Energy is investigating the potential benefits of, and customer interest in, different technologies.

E6. Have you installed Variable Frequency Drives (VFDs)?

a. **[IF E5=YES]** Approximately how much of your work involves VFDs?

b. **[ASK ALL]** How familiar are you with VFDs?

E7. Are customers interested in installing VFDs?

a. **[IF E7=YES]** What do customers like about VFDs?

b. **[IF E7=YES]** Under what circumstances are customers interested in installing VFDs?

c. **[IF E7=NO]** How familiar are customers with VFDs?

PROBE: Are they aware of the energy savings potential?

d. **[IF E7=NO]** Under what circumstances might these customers be interested in installing VFDs?

e. How often do you replace existing VFD's versus installing them where they did not previously exist?

E8. What would cause you to install more VFDs than you currently do?

E9. Have you installed any water well pump VFDs?

a. **[IF E9=YES]** Approximately how much of your work involves water well pump VFDs?

b. **[ASK ALL]** How familiar are you with water well pump VFDs?

E10. Have you installed any constant motor speed controllers? (INTERVIEWER NOTE: Program-qualifying units are typically used for escalators)

a. **[IF E9=YES]** Approximately how much of your work involves constant motor speed controllers?

b. **[ASK ALL]** How familiar are you with constant motor speed controllers?

E11. Have you installed permanent magnet motors?

a. **[IF E9=YES]** Approximately how much of your work involves permanent magnet motors?

b. **[ASK ALL]** How familiar are you with permanent magnet motors?

E12. Can permanent magnet motors create energy savings for customers?

a. **[IF E10=YES]** Under what circumstances? Are permanent magnet motors a better fit in some situations than others?

b. **[IF E10=NO]** What prevents permanent magnet motors from creating energy savings?

E13. Are customers interested in installing permanent magnet motors?

a. **[IF E11=YES]** What do customers like about permanent magnet motors?

b. **[IF E11=YES]** Under what circumstances are customers interested in installing permanent magnet motors?

c. **[IF E11=NO]** How familiar are customers with permanent magnet motors?

PROBE: Are they aware of the energy savings potential?

d. **[IF E11=NO]** Under what circumstances might these customers be interested in installing permanent magnet motors?

SECTION F: EVOLVING MARKET PLACE

F1. About what percent of the equipment you sell is eligible for a rebate under the Motors and Drives Program?

a. Of that, how much of the equipment is motors equipment?

b. How much is drive equipment?

F2. Now imagine that the Xcel Energy program were not available, and you were not able to offer rebates for equipment or have any program support. About what percent of the motor and drive equipment you sell do you think would be energy efficient?

a. What other effects would this have on your business? **[PROBE:** employees, sales techniques, number of clients, time it takes to sell projects]

b. If only the motors portion of the program were available, what percent of motors equipment you sell would be energy efficient? What effects would that have on your business?

c. If only the drives portion of the program were available, what percent of the drives equipment you sell would be energy efficient? What effect would that have on your business?

F3. Do you do any work outside of Colorado? In what states/regions? About what percent of the motor and drive equipment you sell in this state/region is considered energy efficient?

Section G: Satisfaction

G1. What is the Motors and Drives Program doing well that they should keep doing?

a. Is there anything the motors portion of the program is doing well that the drives portion should consider?

b. Is there anything the drives portion of the program is doing well that the motors portion should consider?

G2. What recommendations do you have for improving the program?

G3. Have you had any feedback from your customers about their experiences with the Motors and Drives Program that you think Xcel Energy should know?

Section H: Closing

H1. Is there anything we didn't cover that you'd like to mention or discuss about your experiences working with the Motors and Drives Program?

H2. Thank you. Those are all the questions I have today. [THANK AND TERMINATE]

APPENDIX C: DATA COLLECTION FINDINGS

C.1 STAFF INTERVIEW FINDINGS

INTRODUCTION

To support the process and impact evaluation of the 2018 Xcel Energy efficiency products, the EMI Consulting evaluation team conducted telephone interviews with key staff managing and implementing the Colorado Motor & Drive 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 Motor & Drive 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.

- Product Manager
- 3 Energy Efficiency Engineering Team members, selected by Product Manager
- The lead Account Manager, selected by Product Manager
- The lead Business Solutions Center Representative, selected by Product Manager
- 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 Motor & Drive Efficiency product. These key takeaways provide a summary of the product context and feedback received during both the kick-off meeting and the subsequent staff interviews.

- **The product is a key element of Xcel Energy's portfolio.** Achievement from the product has been strong over the last several years. The product narrowly missed the goal in 2018 due to shifts in project schedules.
- **Trade partners play a crucial role in driving product participation and easing the burden of the rebate application process.** Product staff indicated that trade partners drive in the majority of product rebates. Trade partners can many times inhibit rebate processing speed as receiving an itemized invoice from trade partners is often challenging.
- **Electronic prescriptive rebate applications save time and should be promoted.** Product staff indicated that electronic applications have fewer errors and quicker turnaround times than traditional applications. Trade partners and customers have been initially resistant to electronic

applications, but product staff report that with a small amount of training both groups are more satisfied with electronic applications than traditional applications.

PRODUCT ACTIVITIES, GOALS, AND RESOURCES

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 Motor Efficiency product in Colorado promotes efficiency upgrades in electric motors and drive systems. The product offers custom and prescriptive rebates in HVAC, water pump, and other motor systems for commercial and industrial end-users.
- Xcel Energy staff administer the product internally (there are no outside implementation contractors).
- The product's rebate may be submitted by customers or trade partners.
    - The product allows customers to submit their application either with a traditional application or with an electronic application.
        - The product began offering the electronic application method in the last two years.
- Customers can complete either a prescriptive application or work with the engineering team to complete a custom project. Unlike in Xcel Energy MN, Xcel Energy CO custom project savings attributable to motors and drives are attributed to the Motor & Drive Efficiency product.
    - Product staff can provide rebate checks to either the customer or to the trade partner.
- The multi-tiered prescriptive rebate is based on the product type and the horsepower (HP).
    - Variable frequency drive (VFD) prescriptive rebates vary from $400 for 1 HP VFDs to $10,500 for 200 HP VFDs. Drives of more than 200 HP require a custom rebate evaluation.
    - National Electrical Manufacturers Association (NEMA) Enhanced Motor prescriptive rebates range from $25 to $5,500, based on HP and whether the motor is restored or replaced.
    - Constant speed motor controller rebates are $15 per horsepower.
- Customer accounts are managed by either an account manager or by the Business Solutions Center (BSC), depending on the size of the customer and the history of interactions with the customer.
    - Customers with an aggregated load over 500 kW, customers with multiple business locations, and select other customers receive an account manager.
    - Customers who do not fall into the above criteria are handled by the Business Solutions Center (BSC).

GOALS

- The Motors Efficiency product has historically been at or near the top in Xcel Energy's commercial portfolio for energy savings achievement. Staff acknowledged a potential for improvement in working with trade partners, but mainly want to maintain the product's success.
- The product's primary goal is based on energy savings achievement (kWh and kW).
- The product fell slightly short of the filed goal in 2018, as seen in the table below. The difference between the achieved savings and the goal was primarily due to delays in anticipated projects.

Year	Filed Goals		Achieved Savings	
	kWh	kW	kWh	kW
2018	11,274,543	1,863	10,687,134 (95% of goal)	1,564 (84% of goal)
2019[1]	9,175,413	1,624	NA	NA
2020[1]	9,175,413	1,624	NA	NA

[1]Effective estimated date July 1st.

- Product staff estimated that the 2019 and 2020 goals will be filed with the commission in July of this year.
- Account managers also have kWh targets; however, those targets are not broken out by product.

RESOURCES

- Product staff use SalesForce to manage customer participation records and to support forecasting future participation.
    - SalesForce does not integrate with Xcel's Microsoft Outlook server nor with Xcel Energy's phone systems to automatically import outreach efforts.
    - Motor & Drive Efficiency product management, customer account managers, and BSC representatives log prospective projects into SalesForce.
        - Only outreach efforts resulting in discussions of potential installation of equipment, what staff terms as "opportunities", must be logged in SalesForce.
        - Opportunities are linked to premise numbers so that staff understand which locations and contacts to follow up with for potential projects.
    - The trade partner manager logs "opportunities" discussed with trade partners in SalesForce as well under a different database.
- Xcel Energy promotes this product on its website which contains detailed rebate information, case studies, and other educational information. Xcel

Energy also promotes the product through its support of the Consortium for Energy Efficiency's Motors Decisions Matter initiative, while vendors and Xcel Energy account managers provide direct outreach to customers considering changes in motor and drives systems.

- The Xcel Energy Colorado trade partner manager performs outreach to trade partners on a regular basis through phone calls, emails, and site visits.
    - The trade partner manager also conducts the Energy Efficiency Awards each year.
        - In 2018, an award event was held at each individual trade partner's office location that won an award. This year Xcel Energy will conduct a single awards event (as had been done before 2018).
        - Award winners are published on the Xcel Energy website.
        - Award winners are allowed to advertise as an Xcel Energy Energy Efficiency Award top performing trade partner.
- When customers request a list of potential motor and drive trade partners, BSC representatives provide customers with a list of at least five trade partners who perform installations of motor and drive equipment.
    - Some BSC representatives may pull their referrals from the Energy Efficiency Award winner list, but it is not required by Xcel Energy to pull referrals from this list.
- Product staff underwent training to focus their efforts on the needs of customers and product users (customer-centric) in 2018.

PRODUCT STRENGTHS AND CHALLENGES

During interviews, staff identified the following strengths and challenges to implementing the Motor & Drive 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

- Staff members identified the Motor Efficiency product as a top performer compared to other Xcel offerings. The equipment is ubiquitous in the commercial and industrial world, which allows the product to cover a large share of the market. Account managers noted that it is some of the easiest equipment to sell to their customers.
- The prescriptive application for VFDs is very simple and product staff have heard a great deal of positive feedback from customers and trade partners regarding the application itself.
    - In 2016, staff streamlined the number of data points collected for prescriptive VFD rebate applications, requiring applicants to enter the horsepower of the VFD as it was the main driver of savings.

    - Staff members feel the electronic application prevents many mistakes by customers. The trade partner manager is training trade partners to use the online application.
- Trade partners play an influential role in the product and drive customers to participate in the product.
    - Product staff reported strong participation among trade partners. They have seen trade partners' sales increase due to participating in the product, as well as change their stocking to include more if not only energy efficiency equipment. Product staff do not believe that trade partners would sell as much energy efficient equipment if the product did not exist.
- Account managers have long-standing relationships with customers and are often included in their managed account's construction department email chains. By being included in these chains, account managers are able to pick out product participation opportunities which may have been overlooked by the customer during the planning phase of construction.
- Xcel Energy added financing options within the last year. This financing allows trade partners to quickly pre-apply for loans with very competitive loan terms for their customers. Trade partners can then present these financing options to their customers as potential options.
- The product rebate can be sent directly to any payee the customer designates. This allows:
    - Trade partners to provide the rebates instantly to customers and then to receive the rebate at a later date from Xcel Energy.
    - Product staff to send rebates to individuals in a company other than the billing contact.
- Customers can apply for rebates using any qualifying purchase from the last 24 months. Customers can apply again for replacement equipment, even if they already received a rebate for the original motor or drive. This allows customers to stock up on efficient equipment before it breaks.
- The BSC has added more representatives in the last few years which has helped the BSC assist more customers and process more rebate applications.
- Xcel Energy recently began offering prescriptive incentives for two product types: permanent magnet alternating current (PMAC) motors and water well pump VFDs.
    - Xcel Energy was one of the first utilities in the nation to offer incentives for water well pump VFDs.
        - A new Department of Energy pumping standard may soon allow for additional prescriptive rebates through the product (slated to go into effect January 1, 2020).
    - PMAC motors are more efficient than baseline NEMA premium enhanced motors and are used widely in Europe. These PMAC motors have the added benefit of more precise control than a typical induction motor.

CHALLENGES

- Since the last evaluation cycle, the product has relied primarily on VFDs as fewer rebates for motors have been submitted through the product, as seen in the table below.

Description	Count of Rebated Products		
	2016	2017	2018
Prescriptive Motors	22	0	0
Prescriptive Enhanced Motors (NEMA Premium Enhanced)	23	3	7

    - The reduction in the number of motor rebates was caused by the following:
        - A change in the federal standard for motors took effect in May 2016.[8] The product allowed for a six-month sell-through period for these motors, but no longer incentivizes motors that do not meet the specifications for NEMA premium enhanced motors.
        - Product staff reported that trade partners and customers have had difficulty finding enhanced motors to fit their needs. Additionally, product staff reported that many of the motors in the market sit just below the qualification criteria for enhanced motors.
    - The product will likely continue to see a small number of motor rebates in the next few years as incentives for motors will be reduced with the new IRP filing (set to occur after July 1 of this year).
- SalesForce contains contact lists for billing, but often those contacts are not appropriate for prospecting energy efficiency opportunities.
    - Account managers are reluctant to enter their independently established contacts into SalesForce as they believe that they may be misused or mishandled.
        - For contacts who are filing their rebates electronically, account managers are entering their information so they can get electronic approval of a rebate application.
- Trade partners play a very important role and can potentially inhibit customer participation in the product.
    - Trade partners have not yet pre-applied for financing options for any CO Motor & Drive Efficiency opportunities.
    - One product staff member estimates that about 20% of rebate incentives are sent to the trade partner, implying that only those trade partners are providing instant rebates for their customers. Product

[8] https://appliance-standards.org/product/electric-motors

staff did not fully understand the reasons that trade partners may be unwilling to provide instant rebates for their customers.

- Staff indicated that trade partners may not be motivated to apply for rebates or finish the rebating process and staff often intervene on the part of customers to help them receive a rebate.
  - Customers often times do not understand what types of equipment will be installed or what a project entails. These customers require assistance from the engineering team to tease out which rebates they qualify for.
    - Non-engineering staff feel they could use more information on the technical and engineering aspects of motor and drive technology to more effectively assist customers.
  - Customers often have a hard time getting an itemized invoice of rebated equipment from the installing contractor. Product staff must expend more effort completing onsite verification of installed equipment because of this issue.

- The engineering team found that several recent custom rebate applications should have been filed as prescriptive applications and feel that training for the wider product team may be beneficial to help identify these applications.
- The engineering team felt that it may be beneficial for customers to speak with a knowledgeable Xcel Energy staff member earlier in the planning of their projects as trade partners are not always motivated to install energy efficient equipment or may overlook opportunities for energy efficiency.

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 Motor & Drive Efficiency Product.

- Assess interest in customer bonuses to ensure that projects are completed within the program year.
- Assess interest among trade partners of a trade incentive for increased product participation (akin to the Xcel Energy MN Motor & Drive Efficiency product).
- Better understand the drivers of trade partner participation and potentially complete trade partner non-participant interviews or near-participant interviews.
- Staff would like to understand how the product can maximize influence on the marketplace.
- Product staff will work with the evaluation team to identify the most useful contact information for each project.

C.2 PARTICIPANT SURVEY RESULTS

The following is the raw survey data from the participant survey conducted July 8th through August 9th, 2019.

A1. What is your occupational title within your company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facilities Manager	5	8.3	8.3	8.3
	Energy Manager	2	3.3	3.3	11.7
	Proprietor / Owner	2	3.3	3.3	15.0
	Other facilities management / maintenance position	2	3.3	3.3	18.3
	Other manager / assistant manager	2	3.3	3.3	21.7
	Vice President / Director / Assistant Director / Department Head	1	1.7	1.7	23.3
	Other, specify:	46	76.7	76.7	100.0
	Total	60	100.0	100.0	

A1_Oth. What is your occupational title within your company? Other, specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		14	23.3	23.3	23.3
	Administrative Asst. for Public Works	1	1.7	1.7	25.0
	Appliances	1	1.7	1.7	26.7
	Area Chief Engineer	1	1.7	1.7	28.3
	Building and Residential Manager	1	1.7	1.7	30.0
	Building Engineer	1	1.7	1.7	31.7
	Building Manager	1	1.7	1.7	33.3
	Chief Engineer	8	13.3	13.3	46.7
	Director of Broadcast Operations and Engineering	1	1.7	1.7	48.3
	Director of Engineering	1	1.7	1.7	50.0
	Director of Operations	1	1.7	1.7	51.7
	Director of Operations and Services	1	1.7	1.7	53.3

	Distribution and Collection Superintendent	1	1.7	1.7	55.0
	Electrical Dept. Manager	1	1.7	1.7	56.7
	General Manager	2	3.3	3.3	60.0
	HOA President	1	1.7	1.7	61.7
	Junior Analyst	1	1.7	1.7	63.3
	Lead Engineer	1	1.7	1.7	65.0
	Lineman	1	1.7	1.7	66.7
	Manager	1	1.7	1.7	68.3
	Manager of Energy	1	1.7	1.7	70.0
	Mass Producer and Produce Network Manager	1	1.7	1.7	71.7
	Operations Manager	1	1.7	1.7	73.3
	Plan Operations Coordinator	1	1.7	1.7	75.0
	Project manager	1	1.7	1.7	76.7
	Property Manager	4	6.7	6.7	83.3
	Public Works Supervisor	1	1.7	1.7	85.0
	Senior Lead of Utility	1	1.7	1.7	86.7
	Senior property manager	1	1.7	1.7	88.3
	Senior Property Manager	1	1.7	1.7	90.0
	Superintendent	1	1.7	1.7	91.7
	Superintendent of District	1	1.7	1.7	93.3
	Sustainability contractor	1	1.7	1.7	95.0
	Utilities Superintendent	1	1.7	1.7	96.7
	Waste Water Systems Manager	1	1.7	1.7	98.3
	Water Systems Engineer	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

A3. Has your organization previously participated in this or any other Xcel Energy energy efficiency program for your business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	46	76.7	76.7	76.7

	No	10	16.7	16.7	93.3
	Don't know	4	6.7	6.7	100.0
	Total	60	100.0	100.0	

A4. Did a contractor install the equipment you had rebated as part of the Xcel Energy Motor and Drive Efficiency program, or did you install the equipment with in-house staff?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Used a contractor	50	83.3	83.3	83.3
	Installed equipment with in-house staff	8	13.3	13.3	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

A5. Were you the primary contact between your facility and the Xcel Energy program staff?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	75.0	75.0	75.0
	No	14	23.3	23.3	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

A5a. Who was the primary contact?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Contractor	5	8.3	35.7	35.7
	Someone else at my firm (title):	5	8.3	35.7	71.4
	Other, specify:	3	5.0	21.4	92.9
	Don't know	1	1.7	7.1	100.0
	Total	14	23.3	100.0	
Missing	System	46	76.7		
Total		60	100.0		

A5a_Other. Who was the primary contact? Other, specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		55	91.7	91.7	91.7
	[Colleague Name]	1	1.7	1.7	93.3

	Director of Administratio	1	1.7	1.7	95.0
	Engineer	1	1.7	1.7	96.7
	Office personnel	1	1.7	1.7	98.3
	[Colleague Name]	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

A5a_Else. Who was the primary contact? Someone else at my firm, specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		57	95.0	95.0	95.0
	Building Engineer	1	1.7	1.7	96.7
	Clear energy company	1	1.7	1.7	98.3
	Previous employee	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

B1a. Were you aware of the MEASURE_DESCRIPTION technology as an energy saving measure prior to your decision to participate in this program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	86.7	86.7	86.7
	No	8	13.3	13.3	100.0
	Total	60	100.0	100.0	

B1b. How did you first become aware of the potential to use MEASURE_DESCRIPTION to save energy at your facility?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Through Xcel Energy staff (engineers, or program staff)	6	10.0	10.0	10.0
	Through Xcel Energy account managers	1	1.7	1.7	11.7
	Through the distributor or vendor who sold you this equipment	4	6.7	6.7	18.3
	Through another contractor or vendor (NOTE: Please verify this is not through the same contractor who completed their	5	8.3	8.3	26.7

	Through previous participation in the program	1	1.7	1.7	28.3
	Through the Xcel Energy website,or other media promotions	1	1.7	1.7	30.0
	Through the internet or personal research	4	6.7	6.7	36.7
	Through an Xcel Energy event, expo, or demonstration	1	1.7	1.7	38.3
	Through the contractor who completed this project	2	3.3	3.3	41.7
	Other, specify:	30	50.0	50.0	91.7
	Don't know	5	8.3	8.3	100.0
	Total	60	100.0	100.0	

B1b_Oth. How did you first become aware of the potential to use MEASURE_DESCRIPTION to save energy at your facility? Other, specify

20 years ago
A previous water treatment plan.
A representative from organization
Annual water and waste conference
Articles and Engineering books, Engineering articles on Xcel rebates
Chief engineer
Contractor
During a college internship 15 years ago
Electrician
Engineering services
From other projects 12 years ago
I have known that since I was at HPAC. I have been here 26/27 years. I have known for years they reduce energy. Just the industry.
In 2001 when using drives
Other sites that we manage-first hand experience.
Our electrician
Own professional knowledge
Past experience
Personnel
Previous experience
Prior job role.
Prior knowledge
Prior knowledge 10-15 years ago.
Professional knowledge
We have them all over.
When I first took the position and prior knowledge

Word of mouth
Xcel class

B2. How did you first become aware of Xcel Energy's rebates for Motors and Drives equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Contractor	10	16.7	16.7	16.7
	Distributor, vendor, or electrical mechanical contractor	10	16.7	16.7	33.3
	Xcel Energy staff	4	6.7	6.7	40.0
	Xcel Energy account manager	13	21.7	21.7	61.7
	Xcel Energy website or other media promotions (TV, mass media ads)	3	5.0	5.0	66.7
	Xcel Energy event, expo, or demonstration	3	5.0	5.0	71.7
	Another business / word of mouth	1	1.7	1.7	73.3
	Someone at my business	3	5.0	5.0	78.3
	Online (not Xcel Energy)	1	1.7	1.7	80.0
	Other, specify:	9	15.0	15.0	95.0
	Don't know	3	5.0	5.0	100.0
	Total	60	100.0	100.0	

B2_Oth. How did you first become aware of Xcel Energy?s rebates for Motors and Drives equipment?
Other, specify
At the onset of engineering in 2014
During our planning session and our team.
Energy audit
Our operations staff
Past experience
Prior job.
Supervisor
Through the manufacturer
Vendor

Do. In your own words, how would you describe the influence that the Xcel Energy PROGRAM had on your decision to purchase/install this MEASURE_DESCRIPTION?
30 percent

50/50 influence
A big impact
A bit. A rebate so we re-used it.
A lot to do in terms of the rebate.
Combined with energy savings and rebate.
Crucial
Didn't really because we had to have, but it was nice to have the rebate
Good influence
Good. It helped and they didn't have a choice.
Highly influential
Huge benefit. Because it covers the cost & the equipment saves energy and helps with cost.
I was able to step up our life cycle due to savings.
It definitely helped us achieve the return on investment that would justify the program.
It had a bit of an influence
It helped me convince management to move forward due to rebates.
It influenced the equipment selection.
It made it more cost effective.
It saved me all kinds of money.
It sweetened the deal.
It very much influenced it by cost savings.
It was emergency repair. Rebate just made it more cost effective
It was everything without the rebate it would be harder to get ownership approval. It made it a very easy process
It was highly influential.
It was really more through the funding that we got throughout the state. They were pushing it the most.
It was what made it affordable
It would have happened regardless.
It's a big influence due to the pay backs.
It's energy saving measures and the rebates.
Large impact.
Made it easier
Major contributing factor
Major drive for the decision
Marginal
Needed to replace, they did it reactively
No influence.
None
None, already knew about it.
Not sure
Offered a program that seemed to help
Offering rebate
Overall very good
Positive due to the rebate
Quite a bit
Refused
The rebate program
The rebate was very helpful for the board
The rebates made it possible to afford

The savings was a win-win.
They were already going to be purchased/installed because of the program. We knew that they offered rebates prior to the purchase of the equipment/install.
Very high
Very influential.
Very much so.
Wanted a rebate
We appreciate the rebates, but it was not the chief motivator to install the VFD
We were going to do it anyway. But the rebates helped.
We're very energy conscious here.
Working on cooling towers at the moment, rebates.
Xcel had no influence, but the money did.
Xcel rebate did not drive it, [rebate] was a bonus. They were going to use VFD no matter what because of energy efficiency

D1a. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: A contractor recommendation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	9	15.0	15.0	15.0
	2	1	1.7	1.7	16.7
	3	1	1.7	1.7	18.3
	4	1	1.7	1.7	20.0
	5	11	18.3	18.3	38.3
	6	4	6.7	6.7	45.0
	7	6	10.0	10.0	55.0
	8	4	6.7	6.7	61.7
	9	4	6.7	6.7	68.3
	Extremely important	13	21.7	21.7	90.0
	Not applicable	4	6.7	6.7	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

D1b. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: The dollar amount of the rebate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	1	1.7	1.7	1.7
	2	1	1.7	1.7	3.3
	3	2	3.3	3.3	6.7
	5	4	6.7	6.7	13.3
	7	4	6.7	6.7	20.0
	8	17	28.3	28.3	48.3
	9	2	3.3	3.3	51.7
	Extremely important	29	48.3	48.3	100.0

	Total	60	100.0	100.0	

D1c. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: An endorsement or recommendation by your Xcel Energy account manager or an Xcel Energy Business Solutions Center representative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	9	15.0	15.0	15.0
	1	3	5.0	5.0	20.0
	3	3	5.0	5.0	25.0
	4	1	1.7	1.7	26.7
	5	7	11.7	11.7	38.3
	6	5	8.3	8.3	46.7
	7	8	13.3	13.3	60.0
	8	8	13.3	13.3	73.3
	9	2	3.3	3.3	76.7
	Extremely important	10	16.7	16.7	93.3
	Not applicable	3	5.0	5.0	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1d. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: An endorsement or recommendation by other Xcel Energy staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	13	21.7	21.7	21.7
	1	4	6.7	6.7	28.3
	2	1	1.7	1.7	30.0
	3	5	8.3	8.3	38.3
	4	1	1.7	1.7	40.0
	5	6	10.0	10.0	50.0
	7	3	5.0	5.0	55.0
	8	6	10.0	10.0	65.0
	9	1	1.7	1.7	66.7
	Extremely important	6	10.0	10.0	76.7
	Not applicable	12	20.0	20.0	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

D1e. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Information from Xcel Energy marketing or informational materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	11	18.3	18.3	18.3
	1	1	1.7	1.7	20.0
	2	6	10.0	10.0	30.0
	3	3	5.0	5.0	35.0
	4	3	5.0	5.0	40.0
	5	7	11.7	11.7	51.7
	6	2	3.3	3.3	55.0
	7	4	6.7	6.7	61.7
	8	10	16.7	16.7	78.3
	9	2	3.3	3.3	81.7
	Extremely important	5	8.3	8.3	90.0
	Not applicable	4	6.7	6.7	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

D1f. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Previous experience with this type of equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	4	6.7	6.7	6.7
	3	2	3.3	3.3	10.0
	5	4	6.7	6.7	16.7
	6	2	3.3	3.3	20.0
	7	2	3.3	3.3	23.3
	8	15	25.0	25.0	48.3
	9	1	1.7	1.7	50.0
	Extremely important	24	40.0	40.0	90.0
	Not applicable	5	8.3	8.3	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1f_1. Was this experience through an Xcel Energy program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	43.3	59.1	59.1
	No	13	21.7	29.5	88.6
	Don't know	5	8.3	11.4	100.0

	Total	44	73.3	100.0	
Missing	System	16	26.7		
Total		60	100.0		

D1g. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: The age or condition of the old equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	3	5.0	5.0	5.0
	2	2	3.3	3.3	8.3
	3	2	3.3	3.3	11.7
	4	2	3.3	3.3	15.0
	5	4	6.7	6.7	21.7
	6	4	6.7	6.7	28.3
	7	5	8.3	8.3	36.7
	8	9	15.0	15.0	51.7
	9	4	6.7	6.7	58.3
	Extremely important	21	35.0	35.0	93.3
	Not applicable	1	1.7	1.7	95.0
	Don't know	3	5.0	5.0	100.0
	Total	60	100.0	100.0	

D1h. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: The simple payback period, which is the amount of time until equipment has paid for itself

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	1	1.7	1.7	1.7
	3	3	5.0	5.0	6.7
	5	5	8.3	8.3	15.0
	6	4	6.7	6.7	21.7
	7	11	18.3	18.3	40.0
	8	12	20.0	20.0	60.0
	9	2	3.3	3.3	63.3
	Extremely important	20	33.3	33.3	96.7
	Not applicable	1	1.7	1.7	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1h_1. Did Xcel Energy provide you with information on the simple payback period?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	25.0	30.6	30.6

	No	25	41.7	51.0	81.6
	Don't know	9	15.0	18.4	100.0
	Total	49	81.7	100.0	
Missing	System	11	18.3		
Total		60	100.0		

D1h_2. In your own words, how important was the information provided by Xcel Energy on the simple payback period in your decision to install this equipment?

50 percent (of decision)
70 percent (of decision)
Confirming that they are making the correct decisions and that the engineers are also confirming that they are making good decisions as well
I would rate it as 8
I would rate it as 8.
It allows us to plan better.
It was importance of high efficiency motors for better return from Xcel.
It was important
It was pretty important because we were already thinking about doing it.
It wasn't that critical.
Pretty important
That definitely helped influenced us ;and readily available.
Very helpful
Very important to justify the need to do the project.
Very important.

D1i. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Corporate policy or guidelines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	15	25.0	25.0	25.0
	1	1	1.7	1.7	26.7
	2	1	1.7	1.7	28.3
	3	1	1.7	1.7	30.0
	5	10	16.7	16.7	46.7
	7	6	10.0	10.0	56.7
	8	7	11.7	11.7	68.3
	9	2	3.3	3.3	71.7
	Extremely important	12	20.0	20.0	91.7
	Not applicable	3	5.0	5.0	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

D1j. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Minimizing operating cost

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Not at all important	1	1.7	1.7	1.7
	2	2	3.3	3.3	5.0
	4	1	1.7	1.7	6.7
	5	3	5.0	5.0	11.7
	6	4	6.7	6.7	18.3
	7	4	6.7	6.7	25.0
	8	11	18.3	18.3	43.3
	9	4	6.7	6.7	50.0
	Extremely important	29	48.3	48.3	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1j_1. Did Xcel Energy provide you with information on minimizing operating costs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	31.7	36.5	36.5
	No	25	41.7	48.1	84.6
	Don't know	8	13.3	15.4	100.0
	Total	52	86.7	100.0	
Missing	System	8	13.3		
Total		60	100.0		

D1j_2. In your own words, how important was the information provided by Xcel Energy on minimizing operating costs in your decision to install this equipment?

Between the savings and the amount of rebates and how easily we can get the VFDs installed financially, it was very much a big influence on how we went forward.
Extremely enlightening.
Highly important.
I would rate it as 8.
Important because they have Engineering support. They don't have in-house engineers, and the Xcel engineers tell them what's best.
It was helpful to validate some of the assumptions that were being made.
It was important because we had a couple of meetings about it and the information was very important.
It wasn't that crucial.
Not important
Not very important.
Pretty important
Very important
Very important for our 3-5 year plan.
Very important to reduce costs.
Very important.
Very important. It saved a bunch of money.
Very influential
Vital based on energy savings Xcel showed us.

D1k. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Predetermined timeline or schedule for replacing equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	9	15.0	15.0	15.0
	2	2	3.3	3.3	18.3
	3	1	1.7	1.7	20.0
	4	2	3.3	3.3	23.3
	5	10	16.7	16.7	40.0
	6	2	3.3	3.3	43.3
	7	5	8.3	8.3	51.7
	8	8	13.3	13.3	65.0
	9	6	10.0	10.0	75.0
	Extremely important	12	20.0	20.0	95.0
	Not applicable	2	3.3	3.3	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1l. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Total amount of money saved over lifetime of the equipment, otherwise known as the return on investment or "ROI"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	1.7	1.7	1.7
	5	7	11.7	11.7	13.3
	6	2	3.3	3.3	16.7
	7	7	11.7	11.7	28.3
	8	10	16.7	16.7	45.0
	9	2	3.3	3.3	48.3
	Extremely important	29	48.3	48.3	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

D1m. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Your previous participation in an Xcel Energy program

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	8	13.3	13.3	13.3
	1	3	5.0	5.0	18.3
	3	2	3.3	3.3	21.7
	5	4	6.7	6.7	28.3
	6	2	3.3	3.3	31.7
	7	1	1.7	1.7	33.3
	8	17	28.3	28.3	61.7

	9	3	5.0	5.0	66.7
	Extremely important	16	26.7	26.7	93.3
	Not applicable	3	5.0	5.0	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1n. Rate the importance of the following factor on your decision to install MEASURE_DESCRIPTION: Information received from any training or events conducted by Xcel Energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	14	23.3	23.3	23.3
	1	2	3.3	3.3	26.7
	2	3	5.0	5.0	31.7
	3	1	1.7	1.7	33.3
	5	3	5.0	5.0	38.3
	6	3	5.0	5.0	43.3
	7	5	8.3	8.3	51.7
	8	4	6.7	6.7	58.3
	9	2	3.3	3.3	61.7
	Extremely important	10	16.7	16.7	78.3
	Not applicable	12	20.0	20.0	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1o. Were there any other factors that were important to your decision to participate in the program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, specify	16	26.7	26.7	26.7
	No	43	71.7	71.7	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

D1o_Oth. Were there any other factors that were important to your decision to participate in the program? Yes, specify

Amps on the grid
Anything we can do to increase our efficiency is great
Ease of the rebate process and field verification.
Extending equipment life
Future projects and what he has seen so far
Necessary to have this to get state funding. Higher efficiency equipment.
Optimizing our pumping water
Overall cost into the future. Replacement value, maintenance, etc.
Reduces maintenance costs

Sometimes the equipment fails and they just have to replace it. Then it becomes mandatory.
The Xcel Representative
They were going to do the vide anyway
Time, and the prior equipment broke down
Ultimately our board of directors had to approve it, which was really the financial model with timing and the cost. But they are an external factor that I don't control.
Wanting to be more efficient
We want to recognized for saving energy.

D1o_1. How would you rate the importance of "D1o_OTH"?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	1	1.7	6.3	6.3
	7	1	1.7	6.3	12.5
	8	2	3.3	12.5	25.0
	9	1	1.7	6.3	31.3
	Extremely important	11	18.3	68.8	100.0
	Total	16	26.7	100.0	
Missing	System	44	73.3		
Total		60	100.0		

D5a. If the incentive, information, and support from the Xcel Energy PROGRAM was not available, would you have installed the exact same number, type, model, and efficiency of Measure_Description?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	45.0	45.0	45.0
	Maybe/not sure (Don't know)	15	25.0	25.0	70.0
	No	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

D5b. Rate the likelihood that you would have installed the exact same number, type, model, and efficiency of MEASURE_Description if the Xcel Energy PROGRAM was not available.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1.7	2.4	2.4
	4	1	1.7	2.4	4.8
	5	7	11.7	16.7	21.4
	6	2	3.3	4.8	26.2
	7	5	8.3	11.9	38.1
	8	6	10.0	14.3	52.4
	9	1	1.7	2.4	54.8
	Extremely likely	16	26.7	38.1	92.9
	Don't know	3	5.0	7.1	100.0
	Total	42	70.0	100.0	

Missing	System	18	30.0		
Total		60	100.0		

D6c. In absence of the Xcel Energy program, when would you have installed the exact same number, type, model, and efficiency of Measure_Description you installed through the PROGRAM?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Within one year of installation	20	33.3	47.6	47.6
	Between 1 and 2 years later	6	10.0	14.3	61.9
	Between 2 years and 3 years later	5	8.3	11.9	73.8
	Between 3 years and 4 years later	2	3.3	4.8	78.6
	Greater than 4 years later	4	6.7	9.5	88.1
	Don't know	4	6.7	9.5	97.6
	Refused	1	1.7	2.4	100.0
	Total	42	70.0	100.0	
Missing	System	18	30.0		
Total		60	100.0		

D6d. What is the likelihood that you would have installed the exact same number, type, model, and efficiency of the MEASURE_Description you installed within 12 months of MONTH, YEAR if the program was not available?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all likely	2	3.3	4.8	4.8
	2	1	1.7	2.4	7.1
	3	2	3.3	4.8	11.9
	5	6	10.0	14.3	26.2
	6	1	1.7	2.4	28.6
	7	4	6.7	9.5	38.1
	8	2	3.3	4.8	42.9
	9	1	1.7	2.4	45.2
	Extremely likely	18	30.0	42.9	88.1
	Not applicable	2	3.3	4.8	92.9
	Don't know	2	3.3	4.8	97.6
	Refused	1	1.7	2.4	100.0
	Total	42	70.0	100.0	
Missing	System	18	30.0		
Total		60	100.0		

S1. Since your participation in the PROGRAM in MONTH, YEAR, has your company installed any efficient Motors or Drives products at this facility without a rebate from Xcel Energy?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	21.7	21.7	21.7
	No	41	68.3	68.3	90.0
	Don't know	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

S1a. Why did you not apply for an Xcel Energy rebate for purchasing these efficient Motors or Drives products?

Did apply for a rebate, but waiting on the rebate.
Did not know about it in the beginning
Didn't exist at time or was different didn't qualify.
Don't have Xcel as provider at some sites
Don't know
Just did it so they haven't applied yet
Rebates for motors are hard to get and most motors are already premium efficiency.
Refused
Waiting for rebate information
Xcel had changed rebates and it was not applicable
Xcel's requirement on rebate paperwork for high efficiency motors is typically too difficult for the contractors to fill out. They never take down information on what the motor is being removed. So it makes it very difficult to get the rebates.

S2. Did your experience with the efficient Motors or Drives products you installed through the Xcel Energy PROGRAM influence your decision to install some or all of the additional efficient equipment on your own?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	10.0	46.2	46.2
	No	7	11.7	53.8	100.0
	Total	13	21.7	100.0	
Missing	System	47	78.3		
Total		60	100.0		

S3_1. What type of Motors or Drives equipment did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Efficient motors	5	8.33	45.4	66.7
	Variable Frequency Drives (V-F-Ds)	5	8.33	45.4	100.0
	Other	1	1.67	9.01	
	Total	11	10.0	100.0	
Missing	System	54	90.0		
Total		60	100.0		

S3 other. What type of Motors or Drives equipment did you install? Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		59	98.3	98.3	98.3
	Automated control systems	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

S4a_1. Approximately how many EFFICIENT MOTORS did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1.7	20.0	20.0
	5	1	1.7	20.0	40.0
	6	1	1.7	20.0	60.0
	7	1	1.7	20.0	80.0
	8	1	1.7	20.0	100.0
	Total	5	8.3	100.0	
Missing	System	55	91.7		
Total		60	100.0		

S4b_1. What was the horsepower of the efficient motors you installed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.7	20.0	20.0
	3	1	1.7	20.0	40.0
	30	1	1.7	20.0	60.0
	75	1	1.7	20.0	80.0
	125	1	1.7	20.0	100.0
	Total	5	8.3	100.0	
Missing	System	55	91.7		
Total		60	100.0		

S4a_2. Approximately how many permanent magnet alternating current (P-MAC) motors did you install?

(No responses)

S4b_2. What was the horsepower of the Permanent magnet alternating current (P-MAC) motors you installed?

(No responses)

S4a_3. Approximately how many Variable Frequency Drives (V-F-Ds) did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.7	20.0	20.0

	6	1	1.7	20.0	40.0
	7	1	1.7	20.0	60.0
	9	1	1.7	20.0	80.0
	10	1	1.7	20.0	100.0
	Total	5	8.3	100.0	
Missing	System	55	91.7		
Total		60	100.0		

S4b_3. What was the horsepower of the Variable Frequency Drives (V-F-Ds) you installed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	1.7	20.0	20.0
	75	1	1.7	20.0	40.0
	125	1	1.7	20.0	60.0
	Don't know	2	3.3	40.0	100.0
	Total	5	8.3	100.0	
Missing	System	55	91.7		
Total		60	100.0		

S4a_4. Approximately how many S3_Oth did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	1.7	100.0	100.0
Missing	System	59	98.3		
Total		60	100.0		

S4b_4. What was the horsepower of the S3_Oth you installed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	1.7	100.0	100.0
Missing	System	59	98.3		
Total		60	100.0		

S5. How important was your experience in the PROGRAM in your decision to install the additional equipment on your own?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	3	5.0	50.0	50.0
	Extremely important	2	3.3	33.3	83.3
	Don't know	1	1.7	16.7	100.0
	Total	6	10.0	100.0	
Missing	System	54	90.0		
Total		60	100.0		

S6. If you had not participated in the PROGRAM, how likely is it that your organization would have installed these additional efficient Motors or Drives products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1.7	16.7	16.7
	5	2	3.3	33.3	50.0
	9	1	1.7	16.7	66.7
	Definitely would have installed them	2	3.3	33.3	100.0
	Total	6	10.0	100.0	
Missing	System	54	90.0		
Total		60	100.0		

S7. Since your participation in the PROGRAM, have you installed any additional energy efficient equipment, other than Motors or Drives, at this or other facilities in Xcel Energy's territory?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	45.0	45.0	45.0
	No	27	45.0	45.0	90.0
	Don't know	5	8.3	8.3	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

S8. Did you receive a rebate for any or all of this equipment through Xcel Energy or any other energy efficiency program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, we received a rebate for ALL of the equipment	8	13.3	29.6	29.6
	Yes, we received a rebate for SOME of the equipment	10	16.7	37.0	66.7
	No	7	11.7	25.9	92.6
	Don't know	1	1.7	3.7	96.3
	Refused	1	1.7	3.7	100.0
	Total	27	45.0	100.0	
Missing	System	33	55.0		
Total		60	100.0		

S10_Equipment. What equipment did you install? Equipment details.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	15.0	52.9	52.9

	No	7	11.7	41.2	94.1
	Don't know	1	1.7	5.9	100.0
	Total	17	28.3	100.0	
Missing	System	43	71.7		
Total		60	100.0		

S9. Did your experience with the Xcel Energy PROGRAM influence your decision to install some or all of these efficient products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. EQUIPMENT INSTALLED:	9	15.0	100.0	100.0
Missing	System	51	85.0		
Total		60	100.0		

S10. What equipment did you install?

Air compressors,
Air Conditioning units (6 per site), LED lighting
LED lighting, new boilers
LED lights, ECM motors, Solar panels/PVs, We have done a lot on the water side and gas side, but that is not through Xcel, upgraded our controls, our building automation controls.
LED, Scoreboard
Lighting
Pumps
VRFs

S11. How important was your experience in the PROGRAM in your decision to install this equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	2	3.3	22.2	22.2
	5	1	1.7	11.1	33.3
	8	2	3.3	22.2	55.6
	9	1	1.7	11.1	66.7
	Extremely important	3	5.0	33.3	100.0
	Total	9	15.0	100.0	
Missing	System	51	85.0		
Total		60	100.0		

S12. If you had not participated in the PROGRAM, how likely is it that your organization would have installed these additional efficient products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely would not have installed them	1	1.7	11.1	11.1
	3	1	1.7	11.1	22.2

	4	1	1.7	11.1	33.3
	5	2	3.3	22.2	55.6
	7	1	1.7	11.1	66.7
	8	2	3.3	22.2	88.9
	Definitely would have installed them	1	1.7	11.1	100.0
	Total	9	15.0	100.0	
Missing	System	51	85.0		
Total		60	100.0		

E1a. How would you rate the ease of: Completing program applications or rebate forms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very difficult	3	5.0	5.0	5.0
	2	5	8.3	8.3	13.3
	3	9	15.0	15.0	28.3
	4	16	26.7	26.7	55.0
	Very easy	23	38.3	38.3	93.3
	Not applicable	1	1.7	1.7	95.0
	Don't know	3	5.0	5.0	100.0
	Total	60	100.0	100.0	

E2a. Why was it not easy to complete program applications or rebate forms?

Don't know
Refused
Confusing
It seemed like an issue with understanding what the products were.
The latest was very in-depth and not readily available.
They kept testing.
They weren't versed with the equipment
To complicated

E1b. How would you rate the ease of: Meeting program deadlines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very difficult	1	1.7	1.7	1.7
	2	2	3.3	3.3	5.0
	3	13	21.7	21.7	26.7
	4	8	13.3	13.3	40.0
	Very easy	31	51.7	51.7	91.7
	Not applicable	3	5.0	5.0	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

E2b. Why was it not easy to meet program deadlines?

Don't know
Financial challenges.

E1c. How would you rate the ease of: Getting in touch with an Xcel Energy representative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very difficult	4	6.7	6.7	6.7
	2	6	10.0	10.0	16.7
	3	6	10.0	10.0	26.7
	4	5	8.3	8.3	35.0
	Very easy	34	56.7	56.7	91.7
	Not applicable	3	5.0	5.0	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

E2c. Why was it not easy to get in touch with an Xcel Energy representative?

Had to deal with separate individuals within Xcel.
I don't know how to get in touch with anybody.
I feel like they don't answer their phone.
Inexperienced
Not responsive.
Run around
The first person retired and the new person is not responsive.
They are not staffed properly for the rebate, and we're still waiting on our rebates.
They don't respond to emails
Very hard to find the contact information on the form. All of it was hard. He called around and found a contact...very small print on the form

E1d. How would you rate the ease of: Determining equipment / models that are eligible

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	8.3	8.3	8.3
	3	10	16.7	16.7	25.0
	4	13	21.7	21.7	46.7
	Very easy	26	43.3	43.3	90.0
	Not applicable	4	6.7	6.7	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

E2d. Why was it not easy to determine equipment / models that are eligible?

Refused
Due to serial numbers and other information was cumbersome.
I haven't seen them. Just recommended by contractor.
The verbiage in the forms was complicated.
Too many options on the form and I didn't have the technical expertise.

E1e. How would you rate the ease of: Finding a contractor to complete the work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	4	6.7	8.0	8.0
	4	8	13.3	16.0	24.0
	Very easy	36	60.0	72.0	96.0
	Not applicable	2	3.3	4.0	100.0
	Total	50	83.3	100.0	
Missing	System	10	16.7		
Total		60	100.0		

E2e. Why was it not easy to find a contractor to complete the work?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	100.0	100.0	100.0

E3. Would you have liked more contact, less contact, or about the same amount of contact from Xcel Energy during your Motor and Drive Efficiency project?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More	11	18.3	18.3	18.3
	About the same	47	78.3	78.3	96.7
	Don't know	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

E4. What would you have liked Xcel Energy to contact you about more?

Basically returning phone calls and being more accountable.
Clarification on application
Helping with calculations.
I know it's changing and I needed a little more information on what's available and what's not now. I haven't been using the program as much because to be eligible you are usually putting in extremely expensive motors to become eligible.
More follow up on the equipment installment.
More frequent visits and information.
More leg work.
Some electric bills that I had questions about
Standardizing where we needed to be. More forward thinking.
The representative, and the rebate. The rebate said was not the rebate received
The whole process. He was new.

E5. From the time work started to the time you received your rebate, did the project take less or more time than you expected?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Took much less time than expected	4	6.7	6.7	6.7
	2	11	18.3	18.3	25.0
	3	26	43.3	43.3	68.3
	4	4	6.7	6.7	75.0
	Took much more time than expected	10	16.7	16.7	91.7
	Have not completed project/received rebate	1	1.7	1.7	93.3
	Don't know	3	5.0	5.0	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F1a. How would you rate your satisfaction with: The equipment installed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	6	10.0	10.0	10.0
	4	7	11.7	11.7	21.7
	Very satisfied	46	76.7	76.7	98.3
	Don't know	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F2a. Why weren't you satisfied with the equipment installed?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	100.0	100.0	100.0

F1b. How would you rate your satisfaction with: The contractor who performed the work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	1	1.7	2.0	2.0
	2	1	1.7	2.0	4.0
	3	2	3.3	4.0	8.0
	4	8	13.3	16.0	24.0
	Very satisfied	38	63.3	76.0	100.0
	Total	50	83.3	100.0	
Missing	System	10	16.7		
Total		60	100.0		

F2b. Why weren't you satisfied with the contractor who performed the work?

Ended up having to let them go and they had to replace two pumps after the warranty

Still have issues with the equipment. There was a fault and it took too long to complete and he had to put in a new vide & there is no chance to test the new VFD. No chance to understand why it is not working. They are still trying to figure it out

F1c. How would you rate your satisfaction with: The amount of time it took to receive your rebate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	3	5.0	5.0	5.0
	2	5	8.3	8.3	13.3
	3	9	15.0	15.0	28.3
	4	10	16.7	16.7	45.0
	Very satisfied	28	46.7	46.7	91.7
	Not applicable	1	1.7	1.7	93.3
	Don't know	3	5.0	5.0	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F2c. Why weren't you satisfied with the amount of time it took to receive your rebate?

Don't know
I had to provide multiple reminders for half a year.
It didn't seem like Xcel had knowledgeable staff to implement the program.
It took 7-8 months
It was just really long.
Took a long time
Took a very long time. Lighting rebate waiting for over a year.
Took awhile

F1d. How would you rate your satisfaction with: The dollar amount of the rebate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	2	3.3	3.3	3.3
	2	2	3.3	3.3	6.7
	3	7	11.7	11.7	18.3
	4	14	23.3	23.3	41.7
	Very satisfied	32	53.3	53.3	95.0
	Don't know	2	3.3	3.3	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F2d. Why weren't you satisfied with the dollar amount of the rebate?

Installing VFDs with the specific goal of saving energy is too expensive, even with the rebate. This prevents our organization from installing VFDs district wide without additional need.
Not enough $, amount of time have to wait not worth it.
Should be more for bigger equipment.
Was not the expected amount

F1e. How would you rate your satisfaction with: Your interactions with program staff

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Very dissatisfied	1	1.7	1.7	1.7
	2	1	1.7	1.7	3.3
	3	6	10.0	10.0	13.3
	4	13	21.7	21.7	35.0
	Very satisfied	30	50.0	50.0	85.0
	Not applicable	7	11.7	11.7	96.7
	Don't know	1	1.7	1.7	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F2e. Why were you dissatisfied with Your interactions with program staff?

It takes so long. The hoops you have to jump through takes a long time.
Staff person retired and the new one was not accessible.

F3. Thinking about your experience from start to finish, how would you rate your satisfaction with the PROGRAM as a whole?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	1.7	1.7	1.7
	3	4	6.7	6.7	8.3
	4	19	31.7	31.7	40.0
	Very satisfied	35	58.3	58.3	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

F3a. Why weren't you satisfied with your experience with the PROGRAM?

Too long waiting on the rebate.

F3b. What else could Xcel Energy do to improve your satisfaction with the PROGRAM?

Don't know
Be more consistent
Could make easier application, specify exactly what would be on rebate.
Make it more easier and faster to use.
More information on what's eligible.
More money.
More rebate money.
More technical support.
No suggestions
Nothing.
Paperwork for rebate was temporarily lost and wanted a more accountable process
Probably a faster confirmation process of the installation and payment of the rebate. Once the work was done, it just needed get the process finished faster.
Raise the rebate amount, particularly on motors 20 HP or less.
Rebate levels are going down and the motors and going up (prices)
Speed up the application process.
They could have better communication and make their program communication towards customers and not vendors. He would be able to answer questions better.

Timeliness and more communication.
Xcel rebate standards could be in-line with what equipment is being manufactured at the time. Can't find a motor that is on sale that meets the requirement. The Xcel standards are too high, if it were more reasonable then it would be great. He has to get a custom motor made and it is expensive.

F4. What did you like most about your experience with the PROGRAM?
Don't know
Refused
A discount on the drives and getting them installed.
An opportunity to save money.
Because its there, I was able to accomplish what I needed
Ease
Easy to go through the process
Everything was straight forward
Fairly is to do and get the rebate.
Getting the check
Getting the rebate and the easy process.
Getting the rebate.
Good idea at the time
Got money for something doing anyway.
I liked that I didn't have to deal with the forms ourselves. It was taken care of for us
It helps me sell products to management.
It helps us justify replacing equipment sooner than later due to the rebate.
It seemed easy.
It was an upgrade.
It was easy to deal with Xcel representative and quick
It was so easy.
It's being offered and the rebates are pretty good.
It's easily understandable and easy to apply for.
Just that it exists
Liked the whole idea of energy efficiency.
Our Xcel rep gave all of the info we needed and did most of the processing. They handled everything.
Pretty simple and got money.
Pretty straight forward process.
Rebate amount
Rebate amount size
Rebates and decreasing operating costs.
Seeing the efficiency and money savings.
Simple application
Simple application to complete and amount of the rebate
That it's available
That you just buy and got it
The ease and the dollar amount
The ease of applying and quick processing.
The easiness to use it.
The flexibility that we get from it.
The long term effects for the building and environment
The money
The money coming back

The rebate
The rebate and the money back & the rep
The rebate.
The rebates
The rebates and the simplicity of applying and getting the process going.
The rebates help everyone save money and it is great technology and increasing the life span
The rebates.
The representative, she's been exceptional. Her name is Melanie Gavin
The savings
Very easy to use.
Xcel Energy reps were very positive and followed through.
Xcel took care of all of the paperwork.

F6. How would you rate Xcel Energy as an energy provider?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	5.0	5.0	5.0
	3	6	10.0	10.0	15.0
	4	19	31.7	31.7	46.7
	Very satisfied	30	50.0	50.0	96.7
	Not applicable	1	1.7	1.7	98.3
	Refused	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

C.3 NEAR- PARTICIPANT SURVEY RESULTS

The following is the raw data from the near participant survey, fielded July 8th, 2019 to August 12th, 2019.

A1. What is your occupational title within your company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facilities Manager	4	22.2	22.2	22.2
	Proprietor / Owner	1	5.6	5.6	27.8
	Other manager / assistant manager	3	16.7	16.7	44.4
	Other, specify	10	55.6	55.6	100.0
	Total	18	100.0	100.0	

A1_Oth. What is your occupational title within your company? Other, specify

Chief Building Engineer
Chief engineer

Chief Engineer
Director of Energy Management
District Manager
Electrical Foreman
HPEC Mechanic
Mechanical Lead
On-Site Operations Manager
Portfolio Chief Engineer

A1a. Which of the following best describes your line of business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accommodation and food services	1	5.6	5.6	5.6
	Agriculture, forestry, fishing, and hunting	1	5.6	5.6	11.1
	Educational services	1	5.6	5.6	16.7
	Health care and insurance	2	11.1	11.1	27.8
	Information	1	5.6	5.6	33.3
	Management of companies and enterprises	1	5.6	5.6	38.9
	Manufacturing	1	5.6	5.6	44.4
	Other services (except public administration)	3	16.7	16.7	61.1
	Public administration	1	5.6	5.6	66.7
	Real estate and rental and leasing	4	22.2	22.2	88.9
	Transportation and warehousing	1	5.6	5.6	94.4
	Utilities	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A1aa. Do you recall the discussion to purchase and install the OPPORTUNITY_DESCRIPTION equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	66.7	66.7	66.7
	No	4	22.2	22.2	88.9
	Don't know	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

A1b. Did you eventually purchase the OPPORTUNITY_DESCRIPTION?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	88.9	88.9	88.9
	Don't know	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

A1c. Did you purchase other equipment instead of the OPPORTUNITY_DESCRIPTION?

(No responses)

A1d. Is this equipment more energy efficient, less energy efficient, or approximately the same efficiency as the OPPORTUNITY_DESCRIPTION?

(No responses)

A1e. Why did you decide not to purchase the OPPORTUNITY_DESCRIPTION or similar equipment?

(No responses)

A1f. Did you eventually install the equipment you purchased?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	88.9	100.0	100.0
Missing	System	2	11.1		
Total		18	100.0		

A1ff. Did you receive a rebate through Xcel Energy for installing this equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	72.2	81.3	81.3

	No	1	5.6	6.3	87.5
	Don't know	2	11.1	12.5	100.0
	Total	16	88.9	100.0	
Missing	System	2	11.1		
Total		18	100.0		

A1g. Why didn't you receive a rebate through Xcel Energy for installing this equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		17	94.4	94.4	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A1gg. At what point will you install the equipment you purchased?

(No responses)

A1h. Please describe the equipment you purchased and installed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		4	22.2	22.2	22.2
	25 HP motors and ABB VFDs	1	5.6	5.6	27.8
	450 Baldor Motor and Baldor Inverter	1	5.6	5.6	33.3
	Air handle units	1	5.6	5.6	38.9
	At least 2 VFDs. May be more.	1	5.6	5.6	44.4
	Don't know	1	5.6	5.6	50.0
	HP motors purchased multiple different motors throughout	1	5.6	5.6	55.6
	Motor VFD, fan, or pump.	1	5.6	5.6	61.1
	Transfer Switch	1	5.6	5.6	66.7
	VFD	1	5.6	5.6	72.2

	VFDs	4	22.2	22.2	94.4
	VFDs on flow pumps	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A1i_1. Approximately how many of each of the following motor and drive types did you install? Efficient Motors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5	27.8	35.7	35.7
	1	1	5.6	7.1	42.9
	3	1	5.6	7.1	50.0
	4	2	11.1	14.3	64.3
	8	1	5.6	7.1	71.4
	15	1	5.6	7.1	78.6
	19	1	5.6	7.1	85.7
	Don't know	1	5.6	7.1	92.9
	150	1	5.6	7.1	100.0
	Total	14	77.8	100.0	
Missing	System	4	22.2		
Total		18	100.0		

A1i_2. Approximately how many of each of the following motor and drive types did you install? Permanent Magnet Alternating Current (P-MAC) Motors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	12	66.7	85.7	85.7
	Don't know	2	11.1	14.3	100.0
	Total	14	77.8	100.0	
Missing	System	4	22.2		
Total		18	100.0		

A1i_3. Approximately how many of each of the following motor and drive types did you install? Variable Frequency Drives (V-F-Ds)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	11.1	14.3	14.3

	1	1	5.6	7.1	21.4
	2	1	5.6	7.1	28.6
	3	1	5.6	7.1	35.7
	5	2	11.1	14.3	50.0
	8	1	5.6	7.1	57.1
	15	1	5.6	7.1	64.3
	Don't know	4	22.2	28.6	92.9
	500	1	5.6	7.1	100.0
	Total	14	77.8	100.0	
Missing	System	4	22.2		
Total		18	100.0		

A1i_4. Approximately how many of each of the following motor and drive types did you install? Anything else, specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	11	61.1	78.6	78.6
	1	1	5.6	7.1	85.7
	Don't know	2	11.1	14.3	100.0
	Total	14	77.8	100.0	
Missing	System	4	22.2		
Total		18	100.0		

A1i_4_TEXT. What other type of motor and drive equipment did you install? Specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		17	94.4	94.4	94.4
	Transfer Switch	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A1j_1. What was the horsepower of the Efficient motors?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	1	5.6	11.1	11.1
	25	2	11.1	22.2	33.3
	30	2	11.1	22.2	55.6

	40	1	5.6	11.1	66.7
	Don't know	2	11.1	22.2	88.9
	1500	1	5.6	11.1	100.0
	Total	9	50.0	100.0	
Missing	System	9	50.0		
Total		18	100.0		

A1j_2. What was the horsepower of the Permanent magnet alternating current (P-MAC) motors?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't know	2	11.1	100.0	100.0
Missing	System	16	88.9		
Total		18	100.0		

A1j_3. What was the horsepower of the Variable Frequency Drives (V-F-Ds)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	1	5.6	8.3	8.3
	15	1	5.6	8.3	16.7
	25	1	5.6	8.3	25.0
	40	1	5.6	8.3	33.3
	50	1	5.6	8.3	41.7
	60	1	5.6	8.3	50.0
	Don't know	5	27.8	41.7	91.7
	6000	1	5.6	8.3	100.0
	Total	12	66.7	100.0	
Missing	System	6	33.3		
Total		18	100.0		

A1j_4. What was the horsepower of the other (A1i_4) motor and drive type you installed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't know	3	16.7	100.0	100.0
Missing	System	15	83.3		
Total		18	100.0		

A2. Did your knowledge of the rebates or resources available through Xcel Energy have ANY INFLUENCE on your decision to install the energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	72.2	92.9	92.9
	No	1	5.6	7.1	100.0
	Total	14	77.8	100.0	
Missing	System	4	22.2		
Total		18	100.0		

A2a. How much influence did your knowledge of the rebates or resources available through Xcel Energy have on your decision to install your energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	2	11.1	15.4	15.4
	7	2	11.1	15.4	30.8
	8	4	22.2	30.8	61.5
	Extremely influential	5	27.8	38.5	100.0
	Total	13	72.2	100.0	
Missing	System	5	27.8		
Total		18	100.0		

A2b. Please rate the likelihood of you installing your energy efficient equipment, had you NOT known about rebates or resources available through Xcel Energy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely WOULD NOT have installed	3	16.7	23.1	23.1
	2	1	5.6	7.7	30.8
	3	1	5.6	7.7	38.5
	5	1	5.6	7.7	46.2
	6	3	16.7	23.1	69.2
	8	1	5.6	7.7	76.9
	Definitely WOULD HAVE installed	3	16.7	23.1	100.0
	Total	13	72.2	100.0	

Missing	System	5	27.8		
Total		18	100.0		

A2c. Explain HOW your knowledge of the rebates or resources available through Xcel Energy influenced your decision to purchase or install your energy efficiency equipment.

I have a good rep that reaches out to me.

I have the best relationship with Xcel.

In order to get the type of motor we needed. They were upgraded to get the motor and the rebate.

It helps to have the rebate, but I would install them anyway to save energy.

It's 100 percent through the program that we were interested in doing the installation.

Knowledge came from the Xcel representative. She was the account manager and we had a close relationship. She would sent us emails with rebates and other available information.

Overall cost of the project with the rebate is what made it approved by upper management or the company. Without the rebate we probably would not have done it. It definitely helped with our energy consumption and usage, but if we had to pay the full price, we probably would not have done it.

Personally I thought it was a great thing and we took advantage of it.

The rebate brings the price down and so the approval process for some of our equipment before their failure make it more likely that the management will approve the purchase.

The rebates allowed us to do additional work.

The rebates help us get a quicker ROI.

We had to give all the information to Xcel Energy and then Xcel mailed us a check. It was pretty easy

We would always install the most energy efficient equipment, but it's added incentive - the Xcel rebates - to lower the project costs for the taxpayers.

A3. Have you installed any other motor or drive equipment over the past 3 years?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	44.4	44.4	44.4
	No	9	50.0	50.0	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A3a. Would any of this equipment be classified as energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	44.4	100.0	100.0
Missing	System	10	55.6		

Total		18	100.0		

A3aa. Did you receive a rebate through Xcel Energy for installing ALL of this energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	27.8	62.5	62.5
	No	3	16.7	37.5	100.0
	Total	8	44.4	100.0	
Missing	System	10	55.6		
Total		18	100.0		

A3b. Please describe the energy efficient equipment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		15	83.3	83.3	83.3
	Drives	1	5.6	5.6	88.9
	Lighting, motors	1	5.6	5.6	94.4
	VFDs	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

A3c. When did you install this equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		15	83.3	83.3	83.3
	2016	1	5.6	5.6	88.9
	2018	1	5.6	5.6	94.4
	Over the last few years-2017 and 2018.	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

S3_1. What type of energy-efficient Motors or Drives equipment did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Variable Frequency Drives (V-F-Ds)	2	11.1	66.7	66.7

	Something else:	1	5.6	33.3	100.0
	Total	3	16.7	100.0	
Missing	System	15	83.3		
Total		18	100.0		

S3_Oth. What type of energy-efficient Motors or Drives equipment did you install? Other, specify

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		17	94.4	94.4	94.4
	Lighting	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

S4a_1. Approximately how many EFFICIENT MOTORS did you install?

(No responses)

S4b_1. What was the horsepower of the EFFICIENT MOTORS?

(No responses)

S4a_2. Approximately how many of PERMANENT MAGNET ALTERNATING CURRENT MOTORS (P-MAC) did you install?

(No responses)

S4b_2. What was the horsepower of the PERMANENT MAGNET ALTERNATING CURRENT (P-MAC) motors?

(No responses)

S4a_3. Approximately how many of VARIABLE FREQUENCY DRIVE (V-F-Ds) motors did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	5.6	50.0	50.0
	15	1	5.6	50.0	100.0
	Total	2	11.1	100.0	
Missing	System	16	88.9		
Total		18	100.0		

S4b_3. What was the horsepower of the VARIABLE FREQUENCY DRIVE (V-F-Ds)?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	50	1	5.6	50.0	50.0
	550	1	5.6	50.0	100.0
	Total	2	11.1	100.0	
Missing	System	16	88.9		
Total		18	100.0		

S4a_4. Approximately how many of other Motors or Drives equipment (S3_Oth) did you install?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	240	1	5.6	100.0	100.0
Missing	System	17	94.4		
Total		18	100.0		

S4b_4. What was the horsepower of the (S3_Oth)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	5.6	100.0	100.0
Missing	System	17	94.4		
Total		18	100.0		

A3d. Did you receive a rebate through the Xcel Energy motor and drive program for (any of) the equipment you installed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	11.1	66.7	66.7
	No	1	5.6	33.3	100.0
	Total	3	16.7	100.0	
Missing	System	15	83.3		
Total		18	100.0		

A3e. For which energy-efficient motors and drive equipment did you receive a rebate through Xcel Energy?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Variable Frequency Drives (V-F-Ds)	1	5.6	50.0	50.0

	Don't know	1	5.6	50.0	100.0
	Total	2	11.1	100.0	
Missing	System	16	88.9		
Total		18	100.0		

A3k. Did your knowledge of the rebates or resources available through Xcel Energy have ANY INFLUENCE on your decision to install the energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	11.1	66.7	66.7
	No	1	5.6	33.3	100.0
	Total	3	16.7	100.0	
Missing	System	15	83.3		
Total		18	100.0		

A3l. How much influence did your knowledge of the rebates or resources available through Xcel Energy have on your decision to install your energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	2	11.1	100.0	100.0
Missing	System	16	88.9		
Total		18	100.0		

A3m. If you had NOT known about rebates or resources available through Xcel Energy, would you still have installed your energy efficient equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.6	50.0	50.0
	6	1	5.6	50.0	100.0
	Total	2	11.1	100.0	
Missing	System	16	88.9		
Total		18	100.0		

A3n. In your own words, can you explain HOW your knowledge of the rebates or resources available through Xcel Energy influenced your decision to purchase or install your energy efficient equipment?

It reduces my return on investment.

The rebates allowed us to do additional work.

B2. How familiar would you say you are with Xcel Energy's energy efficiency rebate programs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	5.6	5.6	5.6
	2	1	5.6	5.6	11.1
	5	4	22.2	22.2	33.3
	6	1	5.6	5.6	38.9
	7	2	11.1	11.1	50.0
	8	7	38.9	38.9	88.9
	Very familiar	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

B4_1. How did you become aware of Xcel Energy's rebates for Motors and Drives equipment? (Multiple responses possible)

		Frequency
Valid	Contractor	2
	Distributor, vendor, or electrical mechanical contractor	3
	Xcel Energy staff	3
	Xcel Energy account manager	10
	Xcel Energy website or other promotional materials (TV, mass media ads)	1
	Xcel Energy event, expo, or demonstration	1
	Other, specify	4

B4_14_TEXT. How did you become aware of Xcel Energy's rebates for Motors and Drives equipment? Other, specify

Built waste water system in 2008-2009, Xcel Energy reps informed us.

Electrician

University of Denver Engineer

Wazi Electric

B6. To what extent do you agree with the statement: I regularly see advertising for Xcel Energy energy efficiency rebate programs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	27.8	27.8	27.8
	2	1	5.6	5.6	33.3
	3	6	33.3	33.3	66.7
	4	4	22.2	22.2	88.9
	Strongly agree	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

B7. Have you ever been contacted directly by someone from Xcel Energy regarding energy efficiency rebate opportunities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	61.1	61.1	61.1
	No	7	38.9	38.9	100.0
	Total	18	100.0	100.0	

B7a. Approximately how many times have you been contacted from someone at Xcel Energy regarding energy efficiency opportunities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Once	1	5.6	9.1	9.1
	Two to three times	4	22.2	36.4	45.5
	Four to five times	2	11.1	18.2	63.6
	More than five times, specify how many:	4	22.2	36.4	100.0
	Total	11	61.1	100.0	
Missing	System	7	38.9		
Total		18	100.0		

B7a_4_TEXT. Approximately how many times have you been contacted from someone at Xcel Energy regarding energy efficiency opportunities? Specify

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid		14	77.8	77.8	77.8
	10	1	5.6	5.6	83.3
	12	2	11.1	11.1	94.4
	98	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1a. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Lack of knowledge about Xcel Energy energy efficiency programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	8	44.4	44.4	44.4
	2	4	22.2	22.2	66.7
	3	3	16.7	16.7	83.3
	4	1	5.6	5.6	88.9
	Very much a challenge	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

C1b. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Lack of knowledge regarding equipment cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	6	33.3	33.3	33.3
	2	4	22.2	22.2	55.6
	3	5	27.8	27.8	83.3
	4	1	5.6	5.6	88.9
	Very much a challenge	1	5.6	5.6	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1c. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Lack of knowledge regarding eligibility for Xcel Energy energy efficiency programs

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Not at all a challenge	7	38.9	38.9	38.9
	2	5	27.8	27.8	66.7
	3	4	22.2	22.2	88.9
	4	1	5.6	5.6	94.4
	Very much a challenge	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1d. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Lack of knowledge regarding rebate amounts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	6	33.3	33.3	33.3
	2	4	22.2	22.2	55.6
	3	7	38.9	38.9	94.4
	Very much a challenge	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1e. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Amount of time it takes to install equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	7	38.9	38.9	38.9
	2	6	33.3	33.3	72.2
	3	3	16.7	16.7	88.9
	4	1	5.6	5.6	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1f. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Amount of time it takes to get audit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	7	38.9	38.9	38.9
	2	4	22.2	22.2	61.1
	3	4	22.2	22.2	83.3
	Not applicable	2	11.1	11.1	94.4

	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1g. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Upgrades are not relevant to my facility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	8	44.4	44.4	44.4
	2	5	27.8	27.8	72.2
	3	1	5.6	5.6	77.8
	4	1	5.6	5.6	83.3
	Very much a challenge	1	5.6	5.6	88.9
	Don't know	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

C1h. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Our organization's management or corporate approval process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	5	27.8	27.8	27.8
	2	6	33.3	33.3	61.1
	3	3	16.7	16.7	77.8
	4	1	5.6	5.6	83.3
	Very much a challenge	2	11.1	11.1	94.4
	Not applicable	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1i. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Finding a trustworthy contractor to perform equipment installations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	10	55.6	55.6	55.6
	2	3	16.7	16.7	72.2
	3	5	27.8	27.8	100.0

	Total	18	100.0	100.0	

C1j. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Amount of paperwork

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	3	16.7	16.7	16.7
	2	4	22.2	22.2	38.9
	3	6	33.3	33.3	72.2
	4	3	16.7	16.7	88.9
	Very much a challenge	1	5.6	5.6	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1k. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Program requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	5	27.8	27.8	27.8
	2	7	38.9	38.9	66.7
	3	4	22.2	22.2	88.9
	4	1	5.6	5.6	94.4
	Very much a challenge	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1l. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Equipment cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	3	16.7	16.7	16.7
	2	5	27.8	27.8	44.4
	3	5	27.8	27.8	72.2
	4	3	16.7	16.7	88.9
	Very much a challenge	1	5.6	5.6	94.4
	Don't know	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

C1m. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Payback periods for my business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	4	22.2	22.2	22.2
	2	6	33.3	33.3	55.6
	3	1	5.6	5.6	61.1
	4	2	11.1	11.1	72.2
	Refused	5	27.8	27.8	100.0
	Total	18	100.0	100.0	

C1n. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Your company?s budget cycle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	2	11.1	11.1	11.1
	2	1	5.6	5.6	16.7
	3	5	27.8	27.8	44.4
	4	1	5.6	5.6	50.0
	Very much a challenge	3	16.7	16.7	66.7
	Don't know	1	5.6	5.6	72.2
	Refused	5	27.8	27.8	100.0
	Total	18	100.0	100.0	

C1o. Indicate the extent to which you see the following as a challenge to participate in Xcel Energy energy efficiency programs: Existing long-term capital improvement plans or competing budget priorities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	3	16.7	16.7	16.7
	2	3	16.7	16.7	33.3
	3	1	5.6	5.6	38.9
	4	2	11.1	11.1	50.0
	Very much a challenge	3	16.7	16.7	66.7
	Don't know	1	5.6	5.6	72.2

	Refused	5	27.8	27.8	100.0
	Total	18	100.0	100.0	

C1p. Is there any other factor that you see as a challenge to participating in Xcel Energy energy efficiency rebate programs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, specify	8	44.4	44.4	44.4
	No	10	55.6	55.6	100.0
	Total	18	100.0	100.0	

C1p_Oth. Is there any other factor that you see as a challenge to participating in Xcel Energy energy efficiency rebate programs? Yes, specify

Custom rebates

It's when you have to do a custom rebates. They are quite challenging sometimes.

Knowing it exists

Lack of instant rebate for equipment bought.

Length of time to receive the rebate. It's been over a year.

New representative is not as responsive as the old one

We were a big client, so they assigned us an account rep, but it was hard to get a hold of that person. If you have an account rep, make sure they are available.

C1p_1. Indicate the extent to which you see (C1p_Oth) as a challenge to participate in Xcel Energy energy efficiency programs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all a challenge	1	5.6	12.5	12.5
	2	1	5.6	12.5	25.0
	4	2	11.1	25.0	50.0
	Very much a challenge	4	22.2	50.0	100.0
	Total	8	44.4	100.0	
Missing	System	10	55.6		
Total		18	100.0		

C2. How influential would the strategy of OPTION_1 be to encourage your participation in the program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all influential	9	50.0	50.0	50.0
	2	3	16.7	16.7	66.7
	3	4	22.2	22.2	88.9
	4	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

C3. Why did you rate it this way?

$50 is not much of an incentive.

$50 isn't very much.

Because we need to know what the rebate programs are and if we are going to afford them.

Depends on the situation

Falls right in the middle

Financially I wouldn't enter into anything we aren't already set up for.

I don't need any right now.

If we had to finance this, then we are in trouble, financially.

If we need to have it done, we don't need any additional motivation.

It's too difficult.

Our vendors have less knowledge than we do.

Refused

The challenges of ownership to get financing.

The repair just has to happen.

Those are group decisions.

We are a huge company, but small or mid-size businesses would benefit from it.

We don't make decisions based on what we get out of it. We make decisions based on what's best for the facility.

C4. How influential would the strategy of OPTION_2 be to encourage your participation in the program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all influential	9	50.0	50.0	50.0
	2	2	11.1	11.1	61.1
	3	1	5.6	5.6	66.7
	4	2	11.1	11.1	77.8
	Very influential	3	16.7	16.7	94.4
	Refused	1	5.6	5.6	100.0

Total	18	100.0	100.0	

C5. Why did you rate it this way?

Because our corporation does not take loans for these types of projects.
Because we do not use long-term credit.
Good incentive
In our case the rebate was $6000. So $50 wouldn't be much to us.
It could be either way.
It would be third party involved and we're not into loans.
It would not be the deciding factor.
More money we can get the better off we are.
ROI is important
The double would be even better...more is always better
The Government will pay for the upgrades as needed. We are not going to finance, we are not interested in financing.
This again is a group decision
We are doing the program for the payback and energy efficiency.
We do not have a problem with financing.
We self fund everything.
We typically wouldn't use that avenue for purchasing. Either we have the money or we don't.
We work on the same calendar year, and $50 is not going to move the needle.

C6. You rated "helping customers secure low-interest financing through a trusted lender" as more influential than "providing customers with a $50 bonus for completing rebated projects within the calendar year". Is that correct?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	5.6	100.0	100.0
Missing	System	17	94.4		
Total		18	100.0		

C7. You rated "providing customers with a $50 bonus for completing rebated projects within the calendar year" as more influential than "helping customers secure low-interest financing through a trusted lender". Is that correct?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	44.4	100.0	100.0
Missing	System	10	55.6		

Total	18	100.0		

C8. Why did you rate the strategies that way?

Because it's an instant rebate.

Don't know

It sounds like the best way to go

Low interest financing wouldn't interest our organization. $50 would be a cash incentive.

Might be great for some people who might need financing but this strategy does not interest us

Ownership would not be interested in financing.

ROI is important and he cares a lot about saving money

D1. How frequently do you speak with an account manager/a business solution representative about energy efficiency opportunities at your business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	6	33.3	33.3	33.3
	About once a year	5	27.8	27.8	61.1
	About once every 6 months	2	11.1	11.1	72.2
	About once every 3 months	3	16.7	16.7	88.9
	About once a month	1	5.6	5.6	94.4
	Refused	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

D2a. How would you rate your satisfaction with: Xcel Energy as an energy provider.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	3	16.7	16.7	16.7
	4	9	50.0	50.0	66.7
	Very satisfied	5	27.8	27.8	94.4
	Refused	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

D2b. How would you rate your satisfaction with: Your interactions with your account manager or business solutions representative.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	1	5.6	9.1	9.1
	3	2	11.1	18.2	27.3
	4	4	22.2	36.4	63.6
	Very satisfied	3	16.7	27.3	90.9
	Not applicable	1	5.6	9.1	100.0
	Total	11	61.1	100.0	
Missing	System	7	38.9		
Total		18	100.0		

D2c. How would you rate your satisfaction with: Your participation in other Xcel Energy energy efficiency programs.

(No responses)

D3a. Why weren't you satisfied with Xcel Energy as an energy provider?

(No responses)

D3b. Why weren't you satisfied with Your interactions with your account manager or business solutions representative?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		17	94.4	94.4	94.4
	I have outstanding information and rebates that haven't been taken care of. We get frustrated.	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

D3c. Why weren't you satisfied with Your participation in other Xcel Energy energy efficiency programs?

(No responses)

C.4 TRADE PARTNER INTERVIEW RESULTS

To support the process evaluation of the Colorado 2018 Xcel Energy Motor and Drive Product, members of the EMI Consulting evaluation team conducted in-depth telephone interviews with Trade Partners. The evaluation team interviewed 14 trade partners as part of this effort, including eight contractors and two heating equipment distributors. The interview objectives were:

- Assess market effects of the Motor & Drive Efficiency Product.
- Understand customer and trade partner satisfaction and experience with the product and with Xcel Energy as an energy provider.
- Assess customer and trade partner awareness and perceptions of motors and drives technologies.
- Characterize key barriers in the customer decision-making process related to motors and drives purchases.
- Assess trade partner interest in incentives.

KEY TAKEAWAYS

- Trade partners are highly involved with and rely upon rebates provided through the Motor and Drive Efficiency Product.
- Trade partners primarily participate in the Product with variable frequency drives.
- Product paperwork is a barrier that trade partners may be able to help customers overcome.
- While there is interest in trade partner incentives, most trade partners would pass these incentives on to their customers and therefore raising equipment incentives would likely achieve the same result.

INTERVIEW FINDINGS BY RESEARCH QUESTION

This section describes the findings from the Xcel Energy Motor and Drive Product trade partner interviews. The results are organized by the research question used to address each of the research objectives outlined above.

MARKET EFFECTS OF THE MOTOR AND DRIVE PRODUCT

The evaluation team added a 3% adder to the NTGR to account for market effects of the Product. This adder came from results of the trade partner interviews as well as participant interviews.

- 10 of 14 interviewed trade partners indicated that they usually or always bring up the Motor and Drive Product when selling eligible projects.
- 9 of 14 interviewed trade partners indicated that they are highly involved with the Product, use it regularly to make sales, and are unsure of the effect

that the absence of the program would have, as using it has become "second nature".

Trade Partner Satisfaction and Experiences

Trade partner satisfaction with the Product is high, and the majority of trade partners the evaluation team spoke with are highly involved with it.

- Overall, trade partners are very satisfied with the Product. Just 1 of the 14 interviewed had a suggestion for improving it. This individual requested adjustments for motor rebates, as that equipment is not currently a significant part of their business.
- 8 of 13 trade partners reported that customers receive incentives directly.
- 4 of 11 trade partners complete the application for customers. 5 collaborate with their customer, and 2 provide their customers information about the Product but do not assist them with the application.
- 9 of 13 trade partners have never sold a program-qualified project without using the Product.
- 7 of 14 trade partners reported they use resources from the Product website.
- 7 of 14 trade partners reported they use the online application. These 7 were the same ones who assist customers with the Product application.
- The most commonly cited program advantage was support from the Xcel Energy trade partner manager, with 8 of 12 trade partners reporting this as an advantage.
- 5 trade partners reported financing options as their top product element, and 6 rated it in their top three.

Trade Partner Perceptions of Motor and Drive Technology

Trade partners primarily use the Product for rebates on variable frequency drives. Some also use rebates for motors, but the high requirements for motor equipment makes these rebates out of reach for many trade partners.

- Trade partners most commonly install variable frequency drives (VFD) through the Product, with 12 of 13 reporting they had done so.
- 9 trade partners reported they never engage with the motors portion of the Product. In some cases, trade partners reported that requirements for motor equipment is too high for them to participate, as they cannot find equipment manufactured to those standards.

Key Barriers in Customer Decision-Making Process

Trade partners did not report significant customer barriers to participating in the Product. Barriers in the customer decision making process emerged when comparing results of the customer survey with results from trade partner interviews.

- Trade partners who had received feedback from customers reported that customers were appreciative of the rebates they received and that they liked the new equipment.
- The customer survey indicated that customers saw Product paperwork as a barrier. Just half of trade partners interviewed complete all paperwork for their customers, suggesting that this barrier may be bridged if trade partners were to assist customers with paperwork.

Assess Interest in Incentives

Though trade partners are interested in incentives, they primarily are interested in them to help sell projects further and to increase rebate amounts for their customers.

7 of 12 trade partners included trade partner incentives in their top three program elements. However, 8 of 12 trade partners reported they would pass that incentive on directly to their customers, in effect increasing rebate amounts.

Motors Efficiency Evaluation

2019 Program Evaluation: Recommendations and Responses

The Xcel Energy Motors Efficiency product in Colorado strives to assist customers with awareness and incentives to reduce the barriers associated with equipment purchases. Over time, the product offerings have adjusted to market and regulatory conditions, and incorporated input from completed product evaluations.

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

- Product influence (net-to-gross ratio);
- Participating customer perceptions and awareness;
- Barriers to participation for near-participants;
- Satisfaction;
- Product design; and
- Trade partner experience.

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

Recommendation	Response
1) **Given the known changes to the Product, the evaluation team recommends using the retrospective NTGR of 0.81 for kWh and 0.83 for kW for the prospective NTGR.** The two major changes that have occurred in 2019 and 2020 are the inclusion of water well pump VFDs and the reduction of motor incentives. Because water well pumps will receive a separate NTGR and the product works primarily with drive equipment, the evaluation team feels that neither of these changes warrant a change to the prospective NTGR.	The Company will make the recommended changes to the NTGR for kW and kWh.
2) **Provide trade partners additional trainings in effective marketing and tools like the simple payback calculator and online application.** This may help trade partners complete paperwork more efficiently, better assist their customers, and sell more projects through the product. Training trade partners to be better able to serve their customers may increase customer satisfaction with the product as well as increase the number of projects that trade partners can sell.	The Company agrees to expand training to trade partners to include marketing tools and payback information along with encouraging use of the online application.
3) **Invest in resources to increase trade manager outreach or other resources that would serve a similar function to the trade partner manager to increase product participation.** As trade partners seem to drive product participation, and those aware of the role reported this is a useful resource, the evaluation team	The company agrees to provide additional resources such as webinars, instructional videos, and marketing materials to support trade outreach.

	recommends investing in additional resources to maintain contact with a wider range of trade partners.	
4)	**Continue to ensure that training is provided to account managers and BSC representatives to mitigate free-ridership.** The evaluation team recommends reiterating the importance of applying for rebates retroactively only if the project has been carried out in conjunction with Xcel Energy from the beginning in order to ensure that the investment that Xcel Energy makes in the programs are delivering the greatest value for all customers and that rebates are available to customers who most need them.	The Company agrees to expand training regarding how free ridership can affect the savings potential of projects.
5)	**To prevent projects from closing automatically, ensure that transitions between account representatives are smooth and complete.** This will ensure continuity of project data as well as ensure that Xcel Energy staff have an accurate overview of how many projects have been won and lost each cycle.	The Company agrees to provide training to account managers to ensure projects don't close prematurely.