



Xcel Energy and CenterPoint Energy Multi-family Building Efficiency Program 2018 Evaluation

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FINAL
REPORT



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Introduction

The Multifamily Building Efficiency (MFBE) program is a joint offering from Xcel Energy and CenterPoint Energy. EMI Consulting was commissioned to design and execute a qualitative process evaluation of the MFBE program alongside evaluations of nine Xcel Energy programs in Colorado and Minnesota. This report includes findings from the MFBE program in PY 2017 and PY 2018 Q1 – Q3.

Xcel Energy and CenterPoint Energy offer an array of energy efficiency services, products, and programs to their customers in Minnesota. The two utilities jointly commissioned this evaluation of the MFBE program to improve their customers' experiences, understand the role the program plays in changing the marketplace, analyze the influences the program has on customer choices, and ensure industry-leading performance. This summary includes key findings and recommendations from the evaluation.

Methods

Staff interviews ($n=8$)
 Stakeholder interviews ($n=6$ organizations and 8 interviewees)
 Peer program interviews ($n=4$)
 Peer program data analysis ($n=7$)
 Resident surveys ($n=30$)
 Customer interviews ($n=25$)

Fielding: July 2018 – October 2018

Key Findings



Participating building owners and managers overwhelmingly reported that they had positive experiences with the program.

Participants universally reported positive experiences with the program. All participants reported positive and productive interactions with program staff, and all reported high satisfaction with the free audit, direct installation, and tiered incentive components.



Most participants reported that they decided to participate to save money and to identify measures to improve their energy efficiency.

The building audits and direct install measures were cited as the primary motivation to participate in the program. Most participants viewed the tiered incentive program component as a “nice-to-have” bonus and not a primary motivation to participate.



Respondents cited limited project-approval authority and complex program processes as primary barriers to participation in the audit and direct install components.

Barriers to participation in the audit and direct install components included (1) logistical hurdles for building managers seeking approval from corporate owners and/or building management companies for an MFBE project, and (2) program processes that are perceived by some to be complex or slow.



Primary barriers to participation in the tiered incentive program included difficulty qualifying and longer-than-desired measure payback periods.

Barriers to participation in the tiered incentive component included (1) longer payback periods than some respondents desired and (2) lack of eligibility due to inability of many properties to achieve the minimum 15% energy savings threshold cost-effectively.



The MFBE program offerings are comparable to the most comprehensive multi-family energy efficiency programs offered by peer utilities.

The MFBE program offers five of the six core services identified in peer utility programs. Peer utility programs offer between two and five of these core services, and no peer utility program offered all six of these services. The core service offered by two utilities and not by Xcel Energy/CenterPoint Energy was recommending a list of contractors for customers to hire.



Eligibility criteria for custom or tiered incentives differ significantly between utilities.

The MFBE program requires meeting a 15% savings threshold, criteria for participation among peer utilities are typically less restrictive in terms of whole building energy savings. Only one other peer utility relied on a savings threshold, which was a 10% savings threshold.

2018 Multi-family Building Efficiency Program (Minnesota)

Process Results

Participation Drivers and Barriers



Most customers identified **the free audit and direct install program offerings as primary drivers** of their participation.



Unlike many peer utility programs, **building owners and managers did not mention “tenant retention” or related themes as a driver of participation** in any MFBE program components.



Building managers reported that **the time investment required to seek internal approval for an MFBE project may be a hurdle to participation** in the DI and tiered incentive program components.

Participant Experience



Participants were **generally satisfied with all program components and with their interactions with program staff.**



Several audit and direct install participants expressed interest in participating in the tiered incentive program, and felt that **the MFBE tiered incentive savings eligibility requirements were too strict.**



Most respondents who participated in the tiered incentive reported that they would have appreciated **additional support from the program to find contractors for their projects.**

Peer Utility Benchmarking Results



The MN Xcel Energy and CenterPoint Energy MFBE program offerings are **as comprehensive or more comprehensive than peer programs.**

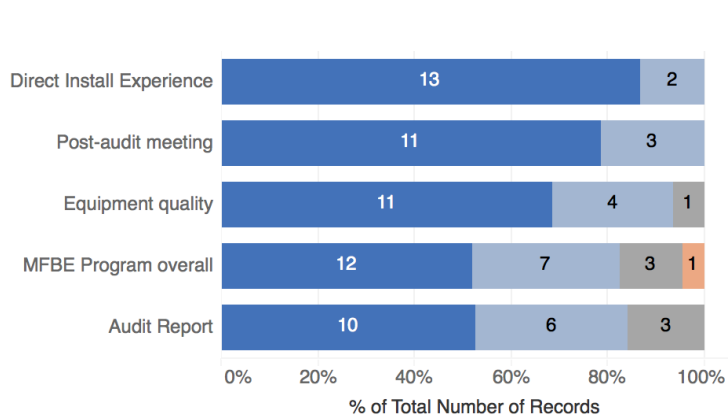


The MN Xcel Energy and CenterPoint Energy MFBE eligibility requirements are **more restrictive than peer programs.**

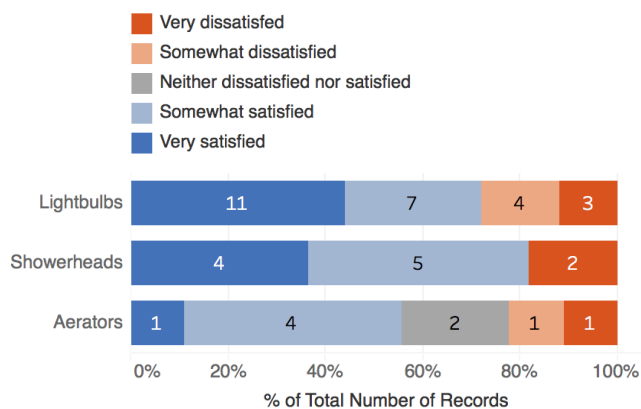


While **almost all peer utility multi-family programs offer direct install measures**, fewer provided offerings specifically targeting low-income housing, and even fewer recommended contractors to participants.

Program Satisfaction



83% of participants reported being “somewhat satisfied” or “very satisfied” with the MFBE program. Participants were generally satisfied with all program components, particularly the direct install and post-audit meeting components.



Residents were generally satisfied with the energy efficient equipment installed in their residence. Residents were particularly satisfied with the showerhead and lightbulb upgrades.

2018 Multi-family Building Efficiency Program (Minnesota)

Process Conclusions & Recommendations

Participating building owners and managers overwhelmingly reported that they had positive experiences with all aspects of the program, however some participants reported minor communication issues with program staff and other utility staff when inquiring about the audit and DI.

Recommendation 1a: Maintain existing implementor practices for conducting audits and installing DI measures. The available evidence suggests that participants find them both educational and a good use of their resources.

Recommendation 1b: Revisit communication practices for initial program contact, prioritizing timely responses to inquiries. Ensure that staff handling Xcel Energy and CenterPoint Energy touchpoints are equipped with information to direct interested customers to MFBE program representatives.

Most building owners and managers reported that they were primarily motivated by cost savings and educational benefits associated with the audit and direct install program components when deciding to pursue participation in the MFBE program.

Recommendation 2: Revisit the marketing approach for the tiered incentive program component. While the audit and direct install program components draw large numbers of participants, potential deeper savings from lost tiered incentive participation are going unrealized. As part of efforts to encourage more participation in the tiered incentive custom program components, program staff can direct resources toward enhancing their messaging approaches for encouraging participation in the tiered incentive custom program component.

Primary barriers to participation in the tiered incentive component of the MFBE program included longer-than-desired payback periods and difficulty qualifying. Primary barriers to participation in the audit and direct install components of the MFBE program included the logistical hurdles involved in initiating projects and challenges navigating program processes.

Recommendation 3a: During initial contacts or audits, continue to probe for the internal project approval requirements of the interested customer. Identifying internal logistical hurdles to a customer participating in the tiered incentive program can provide an opportunity to be proactive about addressing that hurdle or signal the need to be particularly swift in responding to communications from these customers.

Recommendation 3b: Re-examine the savings threshold for participating in the tiered incentive program component. See Recommendation 4 below for additional details.

Recommendation 3c: Seek opportunities to reduce program complexity and speed program processes. Several participants and near-participants reported that they perceive the program processes to be complex and slow, reducing near-participants' willingness to participate in the audit and DI components and reducing audit and direct install participants' willingness to participate in the tiered incentive custom program component.

The MFBE program offerings are comparable to the most comprehensive multi-family energy efficiency programs offered by peer utilities.

Eligibility criteria for custom or tiered incentives differ significantly between utilities.

Recommendation 4: Re-examine the savings threshold for participation in the tiered incentive program component to determine whether a reduction in the minimum savings for participation in this component is warranted to achieve program goals. Only 31% of buildings that have received an audit through the program have qualified for the tiered incentive program component. In addition, several customers reported that they felt that the savings requirements were too strict. Many of these customers reported that they planned to install the suggested measures on their own once they learned that they did not qualify for the tiered incentive.

1. INTRODUCTION

This report presents findings from a qualitative process evaluation of the Multi-family Building Efficiency (MFBE) program, which is a joint offering from Xcel Energy and CenterPoint Energy. EMI Consulting was commissioned to design and execute a qualitative process evaluation of the MFBE program alongside evaluations of nine of Xcel Energy's products in Colorado and Minnesota. This report includes findings from the MFBE program in PY 2017 and PY 2018 Q1 – Q3.

Xcel Energy and CenterPoint Energy offer an array of energy efficiency services, products, and programs to their customers in Minnesota. The two utilities jointly commissioned this evaluation of the MFBE program to improve their customers' experiences, understand the role the program plays in changing the marketplace, analyze the influences the program has on customer choices, and ensure industry-leading performance. This introduction includes an overview of the program, the evaluation approach, and the organization of this report.

1.1 Program Overview

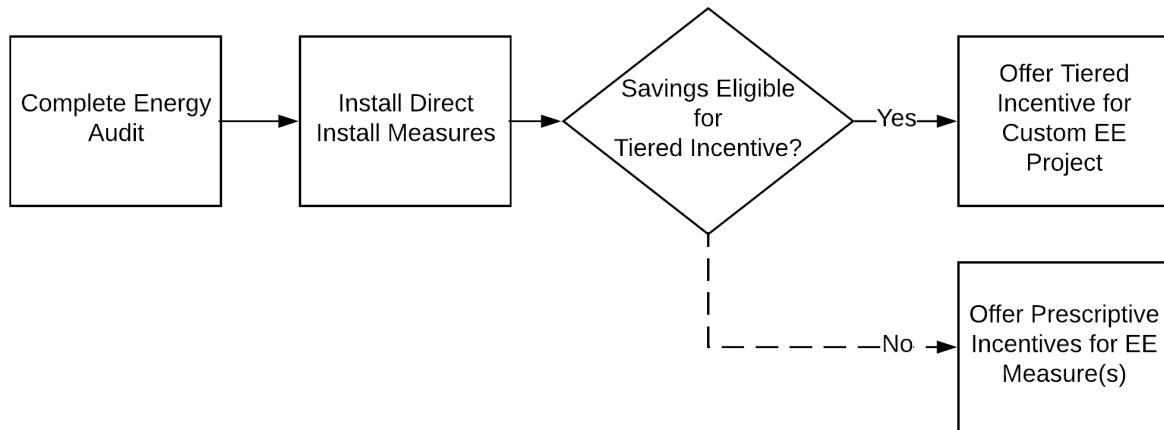
The MFBE program provides several services intended to promote whole-building energy savings for multi-family properties. The program is designed to engage multi-family building owners and managers in understanding their energy use, reducing their energy consumption through low-cost direct install (DI) measures, and participating in larger-scale projects that result in deeper energy savings. The program seeks to motivate property owners to achieve deep energy savings by offering larger incentives for higher levels of savings.

To achieve these goals, the MFBE program offers four main services:

- Whole-building energy audit,
- DI of low-cost, energy-efficient measures,
- Project consultation, and
- Tiered incentives for whole-building energy savings.

Program participants receive the whole-building energy audit first, after which they can choose to install the DI measures. After receiving the DI measures, if they are eligible, participants can choose to complete a custom project through the tiered incentive program component. Participants who are ineligible for tiered incentives can still receive prescriptive incentives for completing prescriptive measures. These program components are depicted in Figure 1-1.

Figure 1-1. MFBE Program Components



To be eligible for the whole-building energy audit and DI measures, a property must:

- Have five or more housing units,
- Have Xcel Energy as their electric service and either CenterPoint Energy or Xcel Energy as their natural gas provider, and
- Have a common entrance, common space(s), and in-unit kitchens.

Program staff install DI measures in common areas and resident units. DI measures are low-cost and quick to install. DI measures include:

- In-unit and common area screw-in LEDs,
- LED exit signs,
- Energy-efficient kitchen and bath faucet aerators,
- Energy-efficient showerheads, and
- Water heater blankets.

Properties are eligible for tiered whole-building incentives if they can achieve 15% or higher whole-building energy savings installing approved energy-related measures. These improvements must be cost-effective, and they must be completed and operational within two years of receiving the audit report. The incentive amounts offered through the MFBE program are derived from a percentage of the costs associated with the cost-effective whole-building energy savings improvements. The proportion of project costs paid through incentives are the same regardless of fuel saved (electric or natural gas) or location of energy savings (residential or common space). This approach is intended to make it easy for owners to understand the incentive available relative to their share of the cost. As shown in Table 1-1, the incentive amounts for this program component are binned into three tiers and vary based on whether the property is considered market rate or low-income.

Table 1-1. MFBE Whole-Building Energy Savings Tiers and Incentive Levels

Achievement Tier	Whole-Building Energy Savings Achieved	Incentive: Market Rate	Incentive: Low-Income
Tier 1	15%	25% of cost	50% of cost
Tier 2	20%	35% of cost	70% of cost
Tier 3	25%	40% of cost	80% of cost

The MFBE program offers higher incentives for qualifying low-income (LI) properties: 50% for Tier 1, 70% for Tier 2, and 80% for Tier 3. To qualify for LI incentives, at least 66% of the resident units in the property must be low-income households. LI qualified properties are defined as properties that meet any of the following criteria:

- Properties deemed eligible for the U.S. Department of Energy (DOE) Weatherization Assistance Program (WAP),
- Properties eligible for Minnesota Housing Finance Agency (MN Housing) Low-Income Rental Classification (LIRC), or
- Properties with low-income use-restrictions, in which a proportion of the households are rented to tenants with annual incomes of less than or equal to 60% of the region's median income.

The program was expected to grow rapidly between 2017 and 2019, with savings goals rising approximately commensurately with increasing annual budgets. The budgets and goals for MFBE in 2017–2019 are provided in Table 1-2.

Table 1-2. MFBE Budgets and Goals (2017-2019 Triennial Decision)

Metric	2017		2018		2019	
	Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy	Xcel Energy	CenterPoint Energy
Electric Budget	\$646,606	-	\$992,113	-	\$1,489,615	-
Electric Savings Goal (kWh)	1,670,172	-	2,500,180	-	3,767,479	-
Electric Demand Savings Goal (kW)	219	-	328	-	494	-
Electric Participation Goal (Buildings) ¹	152	-	228	-	343	-
Electric Participation Goal (Units)	3,038	-	4,556	-	6,865	-
Natural Gas Budget	\$280,740	\$533,262	\$413,993	\$794,890	\$619,898	\$1,174,982
Natural Gas Savings Goal (Dth)	4,177	10,787	6,075	16,202	9,234	24,266
Natural Gas Demand Savings Goal (Dth)	-	108	-	162	-	243
Natural Gas Participation Goal (Buildings) ^a	51	100	75	150	114	225
Natural Gas Participation Goal (Units)	1,013	2,000	1,519	3,000	2,288	4,500

^a Xcel Energy uses only premise-level goals. Building-level goals in this table are estimates based on the assumption that each building has 20 units, consistent with CenterPoint Energy's goal assumptions.

1.2 Evaluation Overview

The evaluation team designed an evaluation of the MFBE program to provide information on three key research topics:

- Program participation drivers and barriers
- Participant experiences with the MFBE program
- Comparison with peer utilities

Table 1-3 presents an overview of the research topics and data sources used in this evaluation of the MFBE program.

Table 1-3. MFBE Program Evaluation Framework

Primary Research Objectives	Staff Interviews (n=8)	Stakeholder Interviews (n=6 organizations; n=8 interviewees)	Resident Surveys (n=30)	Customer Interviews (n=25)	Peer program benchmarking Interviews (n=4)	Peer program benchmarking secondary data analysis (n=7)
Characterize participation drivers and barriers	X	X		X	X	
Characterize participant experiences	X		X	X	X	
Compare with peer utility programs					X	X

1.3 Report Organization

This evaluation report is presented in three chapters. Chapter 2 discusses evaluation findings, including participation drivers and barriers, participant experiences with the program, and comparisons with peer utility programs. Conclusions and recommendations are presented in Chapter 3. The evaluation plan, instruments, and interim memos can be accessed in this report's appendices.

2. EVALUATION FINDINGS

This chapter discusses findings by evaluation objective. Specific evaluation objectives include:

- Identifying participation drivers and barriers
- Characterizing participant experiences
- Comparing the program with peer utility programs

To accomplish these objectives, the evaluation team conducted interviews with program staff, key program stakeholders, customers who received whole-building tiered incentives, recipients of the energy audit, participants in the DI program component, customers who expressed interest in the program but did not participate, and representatives who manage multi-family programs at peer utilities. In addition, the evaluation team conducted secondary research on peer utilities and an online survey of residents at properties that participated in the DI or tiered incentive program components.

This chapter presents key findings from the evaluation, the evaluation team's approach to conducting the evaluation, and specific findings relating to each evaluation objective. These findings inform the conclusions and recommendations presented in the next chapter.

2.1 Key Findings

The evaluation team found that, overall, building owners, building managers, and residents are very satisfied with most components of the current MFBE program. Staff and stakeholders report program processes are generally running smoothly, though they would like to see more participation in the tiered incentive program components. Customers are overwhelmingly satisfied with their experiences in the program, though few audit and direct install participants reported strong motivations to participate in the tiered incentive program component. Additional key findings from the evaluation research included:

- **Key Finding 1: Participating building owners and managers overwhelmingly reported that they had positive experiences with the program, with communication issues at the outset of participation as an occasional exception.** All participants reported positive experiences with the program—particularly with the audit and direct install components. Participants had universally good experiences with program staff and typically reported that their experience with the program exceeded their expectations, which were typically high going into the program. Complaints were generally limited to reported issues with (1) reaching the appropriate MFBE program staff when customers called Xcel Energy or CenterPoint Energy and (2) perceived occasional slowness in responses from program staff during the initial intake process.
- **Key Finding 2: Most building owners and managers reported that they were primarily motivated to participate in the MFBE program because of the prospect of cost savings and educational benefits associated with the audit and direct install program components.** The building audits and direct install measures were overwhelmingly cited as the primary motivation to participate in the program. This is

consistent with the program design, which emphasizes engaging participants with straightforward, low-cost DI measures as an entry-point for deeper savings. Most participants viewed the tiered incentive program component as a “nice-to-have” bonus and not a primary motivation to participate. Several audit and direct install participants indicated that they did not wish to participate in the tiered incentive component given the logistical challenges involved with securing approval from their organizations.

- **Key Finding 3: Primary barriers to participation in the tiered incentive component of the MFBE program included longer-than-desired payback periods and difficulty qualifying.** Barriers to participation in the tiered incentive component included (1) longer payback periods than some respondents desired and (2) lack of eligibility due to inability of many properties to achieve the minimum 15% energy savings threshold cost-effectively.
- **Key Finding 4: Primary barriers to participation in the audit and direct install components of the MFBE program included the logistical hurdles involved in initiating projects and challenges navigating program processes.** Barriers to participation in the audit and direct install program components included (1) many participants’ limited authority to make decisions about approving MFBE projects without approval from more senior staff and/or executive boards of their organization and (2) program processes that are sometimes perceived as complex or slow.
- **Key Finding 5: The MFBE program offerings are comparable to the most comprehensive multi-family energy efficiency programs offered by peer utilities.** The evaluation team identified six core services offered by peer utility multi-family programs:
 1. Free energy audits,
 2. Free DI measures,
 3. Prescriptive rebates,
 4. Custom rebates,
 5. Contractor recommendations, and
 6. LI-specific incentives

The MFBE program offers five of these six services (all but *contractor recommendations*). Of the seven peer utility programs three peer utility programs Peer utility programs offered between three and five of these services, positioning the MFBE program as one of the most comprehensive multi-family programs studied.

- **Key Finding 6: Eligibility criteria for custom or tiered incentives differ significantly between utilities.** The MFBE program contains all major program offerings of other utilities’ multi-family programs. While the MFBE program requires meeting a 15% savings threshold, criteria for participation among peer utilities are typically less restrictive in terms of energy savings (e.g., a 10% savings threshold) but may be more restrictive in terms of the required diversity of measures (e.g., requirement to install measures from at least two of

four measures categories, including envelope, heating/cooling, water heating, and appliance/lighting).

2.2 Approach

To accomplish the evaluation objectives for the MFBE program, the evaluation team completed a suite of intersecting and complementary research activities. The following discussion highlights the research topic coverage contributed by each research activity: the staff interviews, stakeholder interviews, customer interviews, resident surveys, benchmarking interviews, and secondary data analysis.

Staff Interviews

Early in the course of this evaluation, the evaluation team conducted eight in-depth interviews of Xcel Energy and CenterPoint Energy personnel involved with the MFBE program. We conducted these interviews to obtain feedback on overall program performance, collect staff feedback on implementation successes and challenges, and identify themes and issues for possible revisions to the evaluation plan. Since the MFBE program is jointly-administered through Xcel Energy and CenterPoint Energy, the evaluation team conducted interviews with key staff from both utilities as well as the implementation contractor. The evaluation team interviewed program managers and program staff, including implementers, engineers, and marketing assistants.

Appendix B.1 presents the interview guide used for these discussions. Appendix C presents the interim memo provided to program staff immediately following these interviews.

Stakeholder Interviews

The evaluation team conducted telephone interviews with stakeholders involved with the MFBE program. The evaluation team interviewed eight people from six key stakeholder organizations, including municipal authorities, statewide authorities, along with housing and clean energy advocacy organizations.

Appendix B.2 presents the interview guide used for these discussions. Appendix D presents the interim memo provided to program staff immediately following these interviews.

Customer Interviews

The evaluation team conducted 25 telephone interviews with participating and near-participating customers in the MFBE program. We conducted these interviews to obtain feedback on overall program performance, collect feedback on motivations and barriers to participation, and identify themes integral to participants' understanding of the program. The evaluation team interviewed:

- Facility and maintenance managers
- Property managers
- Property owners
- Board members
- Project managers

- Housing managers

The evaluation team segmented interviewees by the extent to which they participated in the program. “Near-participants” are defined as those who expressed interest in the program through an inquiry and/or application but did not receive an energy audit. Other interviewee groups are identified by the program components they qualified for and/or participated in. Of 25 interviews, 4 were with near-participants. All of the remaining 21 interviewees completed both an audit and direct install. 7 of these interviewees qualified for a tiered incentive, 2 of whom have moved forward with a project supported by the tiered-incentive.

Appendix B.3 presents the interview guide used for these discussions. Appendix E presents the interim memo provided to program staff immediately following these interviews.

Resident Surveys

The evaluation team developed and distributed an online survey targeted toward residents of properties that participated in the MFBE program. The evaluation team did not have access to resident contact information, therefore the evaluation team asked customer interviewees if they would be willing to distribute a survey to their residents. The evaluation team sent a \$15 gift card to participating residents who provided their email address on the survey. Only four interviewees distributed the survey to their residents. The evaluation team sent two emails and made up to six calls per interviewee to follow-up about sending the survey to their residents. Only residents from four of the interviewee properties responded to the survey, yielding a total of 30 completed surveys. It is worth noting that the majority of respondents (27 of 30) reported that they owned their unit.

The purpose of the survey was to identify the level of residents’ awareness of their building’s participation, their satisfaction with equipment installed through the program, perceived challenges with the program, and suggestions for improving delivery of the program.

Appendix B.4 presents the resident survey guide.

Benchmarking Interviews and Secondary Data Analysis

The evaluation team conducted telephone interviews with key staff at four other utilities and non-profit organizations. These organizations manage and, in some cases, implement programs similar to the MFBE program. The evaluation team also conducted secondary research with three additional peer organizations, as well as with the four utilities interviewed as part of this effort. The organizations were chosen in collaboration with Xcel Energy and CenterPoint Energy program staff. They were selected for their similarities to, and differences from, the MFBE program.

The evaluation team conducted this research to identify opportunities to improve the MFBE program based on a comparison of peer organizations’ design, delivery, and processes. In addition, program benchmarking allowed us to compare the MFBE program’s incentive levels, savings achieved, budgets, and other key metrics to the performance of other programs.

Appendix B.5 presents the interview guide used for these discussions. Appendix F presents the interim memo provided to program staff immediately following these interviews.

2.3 Objective 1: Identify Key Drivers of and Barriers to Program Participation

The first evaluation objective was to characterize key drivers of and barriers to participation in the MFBE program. This evaluation team drew from staff interviews, stakeholder interviews, customer interviews, and peer program benchmarking interviews to understand what: (1) motivates customers to participate in the program, (2) barriers customers face in pursuing projects, (3) barriers the program may face in encouraging additional participation, and (4) related lessons can be learned from successes and challenges experienced by other utilities.

Our research indicates that customers are primarily motivated by cost savings (both through the audits and the direct install) and education. In particular, the advantages provided through the audit and the direct install components of the MFBE program are the primary motivators for program participation. While both the audit and DI components are related to energy and cost savings, these program components can be completed without customers' participation in the tiered incentive component of the program. As such, interviewees generally perceived the advantages of participation in the tiered incentive component of the program to be extraneous; their main motivations to participate are addressed and fulfilled in the early components of program participation.

Most customers did not cite barriers to participation. Among the customers who did cite barriers, those barriers included difficult approval processes and modern or recently upgraded buildings that do not qualify for tiered incentives through the program. Additionally, program staff and stakeholders mentioned concerns about the ability of customers to meet both the energy savings and cost-effectiveness requirements, mentioning that customers may be confused by the complexity of participating in the program.

In the rest of this section, we present more detailed results on the drivers of and barriers to participation. Table 2-1 summarizes data sources used to develop the findings related to drivers of participation and Table 2-2 summarizes data sources used to develop the findings related to barriers to participation.

Table 2-1. Data Sources Used to Assess Drivers of Program Participation

Themes	Staff Interviews (n=8)	Stakeholder Interviews (n=6 organizations; n=8 interviewees)	Resident Surveys (n=30)	Customer Interviews (n=25)	Peer program benchmarking Interviews (n=4)	Peer program benchmarking secondary data analysis (n=7)
DI/Audit cost savings	X	X		X		
Education from audit	X			X		
One-stop-shop design		X				
Higher incentives for LI buildings		X				
Comparisons to peer utilities					X	X

Table 2-2. Data Sources Used to Assess Barriers to Program Participation

Themes	Staff Interviews (n=8)	Stakeholder Interviews (n=6 organizations; n=8 interviewees)	Resident Surveys (n=30)	Customer Interviews (n=25)	Peer program benchmarking Interviews (n=4)	Peer program benchmarking secondary data analysis (n=7)
Low demand for tiered incentive component				X		
Communication difficulties				X		
Long payback periods				X		
Meeting tiered incentive participation criteria	X	X		X		
Meeting cost-effectiveness participation criteria	X			X		
Complexity and time investment of program participation	X			X		
Timeline too short to complete projects		X		X		
Information needs		X				
Comparisons with peer utilities					X	X

Drivers of Participation

To better understand key drivers of participation in the MFBE program, the evaluation team first asked program staff, stakeholders, and participating customers to describe their perceptions of these drivers. Key drivers of participation identified by these groups included:

- Cost savings through the free audit and direct installs
- The educational component
- “One-stop shop” program design

- Higher incentives for low-income housing.

Surprisingly, these groups did not bring up tenant retention as a motivating factor for participation, something that, according to program staff, other multi-family energy efficiency programs regularly cite as an important motivator. The following sections will explore each of the four key drivers in more detail, along with providing comparisons to peer utilities.

Cost Savings through Direct Installs

Customer interviews indicate that the opportunity for cost savings drives participation in the MFBE program. Most interviewees reported that DI savings were sufficient for meeting their energy savings goals and did not report being motivated by the potential energy savings of the tiered incentive program component. The majority of participants cited the direct install component of the program as the most valuable opportunity to achieve cost savings:

“I was hoping for some financial help...product gifting or whatever you call it in the program...that initially was brought to my attention right away...so that obviously triggered the payback.”

This interviewee initially applied for the program because the cost savings associated with the direct install were “obviously” sufficient for their intentions at the time of application. This aligns with feedback from other audit and direct install participants, one of whom stated that the program has “no downsides” due to the opportunities that the audit and direct install present. The cost savings participants could achieve just through participating in the direct install component of the program motivated them enough that, for many, eligibility for participation in the tiered incentive component of the program did not factor into the decision to apply.

Program staff also see the free building audit and direct install components as drivers of program participation. During interviews, a program staff member mentioned:

“[Direct installs] provide a great marketing opportunity for people who want to be more environmentally conscious and make a huge impact. They get no-cost products that they start to save money literally the moment that they're installed.”

Direct install measures are also some of the most cost-effective measures offered by the program and are beneficial for both residents and building owners. Program staff perceive that participants are especially satisfied with the ease of the direct install component of the program and with the energy savings that have occurred because of their participation. Program staff reported that property managers who had a positive experience with the program mentioned the program to other property managers who they felt would be interested in participating in the program.

Finally, several stakeholders also mentioned the direct install component as a driver of program participation. This is because the direct install component gives property managers the opportunity to install easy and low-cost measures, potentially increasing participation in the program.

Education Provided by the Audit

In addition to cost savings, customers mentioned they were motivated to participate by the educational aspects of the program as well. As with energy savings, customers found they could

increase their knowledge of energy savings through the audit alone, and they did not necessarily need to receive tiered incentives to realize this goal. The majority of interviewees cited the educational aspect of the audit as integral to their decision to apply. All participants expressed appreciation for the audit as an opportunity to better understand their building and energy usage, as well as to get an idea for possibilities to improve building efficiency. For many participants, whether or not those improvements were conducted through the program did not factor into their decision to apply. This is particularly notable in the case of the four participants who explicitly stated that they knew it was unlikely they would qualify for the tiered incentives component due to recent energy efficiency upgrades to their buildings.

Many participants who conducted the audit primarily for educational purposes, rather than to qualify for participation in the tiered incentive program component, noted that they intended to use the audit to guide future energy efficiency upgrades. Those interviewees who regularly make these kinds of upgrades appreciated the opportunity for a more holistic understanding of their property's energy usage as well as the chance to see which upgrades would offer the highest savings within the property budget.

Program staff also cited the program's educational component as a key driver of program participation. From the staff perspective, the program as a whole is intended to serve as a "gateway" for increased interest in energy efficiency and increased participation in energy efficiency programs by helping participants increase their awareness and understanding of energy efficiency and energy efficiency measures. One program staff member noted:

"The purpose of the program is to provide education about energy efficiency, new initiatives, technologies, and . . . provide information about how CenterPoint and Xcel Energy work and how they can be a resource for making energy efficiency decisions. Our purpose is not to endorse specific vendors nor manufacturers, but instead to recommend technologies."

According to program staff, each participant should ideally know more about the energy efficiency opportunities in their building(s) after participating, regardless of whether they participate in all program components.

"One-Stop Shop" Program Design

Stakeholders cited the "one-stop shop" nature of the program—including audit, direct install, and support for implementation of the recommended measures—as influential in driving projects. This design helps owners navigate and move through the program, with the utilities serving as guides. It offers opportunities for multi-family building owners to implement energy efficiency measures that would have been difficult to achieve otherwise. Furthermore, by jointly operating the program through two utilities, program participants can capture benefits from both fuel sources.

Participants did not specifically cite the "one-stop shop" nature of the program as a benefit. However, because the majority of them did not have prior experience with this or other energy efficiency programs, they had no expectations in regard to this aspect of the program. Instead, owners and property managers cited strong relationships with program staff as a driving force behind their ability to navigate successfully through various aspects of the program to implement energy efficiency measures.

Higher Incentives for Low-income Housing

Lastly, the majority of stakeholders specifically mentioned the higher incentives for affordable housing as a key driver for program participation. Most stakeholders expressed that it is a priority for them to reach and engage the low-income housing community, and that the higher incentives are a significant component of the program that can help reach these communities. Some stakeholders expressed concern that the two-year completion window might be too short, although the program was revised to adjust the start date for the two-year completion window to the date the audit report was delivered instead of the date the audit occurred. This change was intended to allow program participants more time to complete qualified upgrades and secure financing, if needed. However, no customers reported access to financing as a barrier to program participation.

The three low-income interviewees who qualified for the tiered incentives confirmed that the high tiered incentives were a strong motivator for participation. As one qualifying low-income customer stated:

“The writing is on the wall. If I get a new boiler, it's efficient. So, I'm using less energy, saving money, and I'm getting a rebate that's larger.”

Only one of these interviewees explicitly mentioned the fact that low-income properties are eligible for higher incentives than market rate properties. It is possible that the other two qualifying low-income customers were not aware or did not remember that incentives for low-income customers were larger than for other market rate customers.

Comparison to Peer Utilities

The evaluation team asked the four peer organization program managers interviewed what they considered to be key drivers of participation for their programs. Program staff at these utilities reported the biggest driver was often that the program not only offers low-cost or free options for building upgrades, but that it also saves participants money over time via the energy savings associated with those low-cost or free upgrades. One peer utility staff member noted in their interview:

“Compared to a traditional rebate program, where you have to figure out a rebate application and all the stuff . . . people email with us, they set up a site visit, we go out, then we tell them how much money they get. That is a pretty sweet process when you consider, if you went to go try to do all of that yourself, that would be a pretty significant investment of time and energy.”

This echoes the findings from customer and program staff interviews about the Xcel Energy/CenterPoint Energy program, that customers are primarily motivated by cost savings, free equipment, and ease of participation. Other key drivers identified by peer utility staff for their programs included the ability to make significant capital improvements by offsetting some of the cost with help from the utility, property improvements that make multi-family buildings more attractive to prospective tenants and reducing tenant turnover by lowering tenant energy bills. Though these drivers were not specifically identified during interviews with participants, program staff, or stakeholders, they may be useful avenues for increasing participation in the future as they have been successful drivers for similar programs.

Barriers to Participation

To better understand key barriers to participation in the MFBE program, the evaluation team asked program staff, stakeholders, and participating customers to describe their perceptions of these barriers. Key barriers to participation identified by these groups included:

- Difficulty receiving initial project approval from condo associations and executive boards
- Long payback periods
- Requirement to meet savings threshold and cost-effectiveness criteria
- The complexity and slow speed of program processes
- The timeline required to complete projects
- A need for further customer education

The following sections explore each of these barriers in greater detail and provides comparisons with peer utilities.

Communication Difficulties During Audit and DI Participation

The largest barrier to participation was the perception among some interviewees that approval processes from property boards and, in some cases, perceived delays from utility staff required too much time and effort. Because approving program participation does not fall within routine processes that boards are accustomed to, the six interviewees who faced board approval indicated spending significant energy moving the approval process forward. While customers primarily view this problem as one they can solve independently of the utilities, six interviewees faced challenges obtaining basic information from program staff towards the beginning of the participation process:

“The Xcel Group has been very helpful, but they clearly were on the side of, ‘Ah, we’re not sure about that. We’ll get back to you.’ So, every time that there was a question that came from the board to me and then me to Xcel, there was delays on both sides of it.”

Individuals such as this one did not feel that program staff had sufficient knowledge to help them make decisions about program participation for themselves and/or provide enough information to relay to their boards so that the process could be implemented as efficiently as possible. These complaints were mostly from early program participants, although one 2018 participant reported that program staff were occasionally slow to respond to emails.

These challenges primarily took place early in the application process; most who were disappointed with communication from the utilities had difficulty reaching the correct staff member initially but were satisfied once the program application process had begun.

Long Payback Periods

While many audit and direct install participants were ambivalent towards participation in the full program at the time of application, some interviewees indicated that, had payback periods been shorter, they may have been motivated to take advantage of larger project offerings. Because participation in the tiered incentive was not the main motivator for many interviewees, this did not

come up as a barrier from their perspective. Audit and direct install participants who would have qualified for incentives but chose not to move forward with the program, however, cited payback periods upwards of five years as out of the range that their management would approve. For these individuals, long payback periods made program participation out of reach, and thus not something that they could seriously consider.

Requirement to Meet Savings Threshold for Tiered Incentive Program

Through the program, a proposed project bundle must achieve 15% energy savings to qualify for MFBE program incentives. The 15% energy savings target can be difficult for some customers to achieve, as noted in five customers interviews. These interviewees, all audit and direct install participants, noted that the 15% savings tier was out of reach. Many of these individuals regularly make energy efficiency upgrades to their buildings and reported that their buildings were too efficient at the time of application to qualify for incentives through the MFBE program. Some of these individuals, like the one below, noted that incentives for individual measures might motivate them to implement further measures:

“I don’t think that was made clear that you had to reduce your energy by such a high rate in order to get any of the rebates. But after we got into the program, we realized that. I felt that the program should have offered incremental rebates for those things that were done. And then, rather than have a second application or a second activity that you had to participate to do that and then reward you overall after you got to that higher level with all of your improvements.”

It is important to note that these same five interviewees reported being unsure of how efficient their buildings were at the time of application and were interested in making upgrades, but they expressed disappointment upon learning that their building did not qualify for the tiered incentive component because their building already had moderately efficient equipment.

Stakeholders also consistently brought up the 15% savings requirement as a barrier to participation. One stakeholder believed that, once a program participant has expressed interest in the custom rebate portion of the program and has worked with the utility to gather necessary bids from contractors in order to apply for MFBE incentives, it can be discouraging for them to learn their project has been denied because the upgrade did not meet the 15% savings requirement. This is believed to cause disinterest in the program. It is important to note, however, that the program is designed so participants will only be directed to seek out bids if they qualify for the tiered incentive, so this is a misunderstanding of the program design.

Stakeholders also noted that in order for an MFBE program incentive to be approved, owners must complete a full bundle of measures that achieves the minimum energy savings. Contractors may not always be able to complete a recommendation, may not be able to complete it as recommended, or may feel that some of the measures are unnecessary. This lack of clarity between participants, program staff, and the contractors implementing the recommended measure can lead to confusion over how a participant should successfully complete a recommended project in order to reach the 15% savings requirement.

Meeting Cost-Effectiveness Requirements

When asked about barriers to participation, program staff highlighted the combination of the program's cost-effectiveness requirements and its 15% energy savings target as a significant barrier to achieving program participation and savings goals. Through the program, customers can custom-bundle measures to achieve the 15% savings threshold while remaining cost-effective. This design, considered by some program staff and stakeholders to be the program's chief mechanisms for motivating program participation, is intended to give participants the flexibility to offset measures that are less cost-effective with more cost-effective measures in a bundle in order to meet the program's savings requirements. Other program staff felt that the audit and direct install program components are the most significant motivator for participation. Customer interviewees, however, did not report that the tiered-incentive design was a strong motivator for participation.

The custom-bundling option enables program staff to provide ongoing support to program participants (where applicable) regarding the status of their application, which the program staff believe can help reduce the program's complexity in the eyes of the participant. However, the way the program is currently structured may mean that some participants experience a degree of uncertainty at the beginning of their participation about whether their bundle of measures will qualify for an incentive. Occasionally, a participant will put together a bundle of measures that program staff estimate to be cost-effective, but once they go through the process of soliciting bids from contractors and developing a work plan, their project can be denied for an incentive because the contractor estimates do not meet the cost-effectiveness threshold. A staff member interviewed by the evaluation team stated:

“This becomes one of the complexities of the program, because as soon as you take it from what's on paper and our estimates and they'd go out to their contractors, the contractor gives them a proposal and then they, the customer, sends that to us... We have to update all of those variables and then give them a preapproval and say, 'Okay, now go and do these three or seven or eleven projects.' But, if along the way, the scope of work changes, then if they were just barely above 15%, now they're below 15%. That is one of the biggest challenges of this program, is that because it's comprehensive and we're bundling, we're trying to herd cats.”

Additionally, a boiler is often required to reach 15% energy savings but is also often not cost-effective under the current cost-effectiveness calculation methodology. Program staff reported that once a participant finds out their project is not eligible for the tiered incentive program component, they often lose interest and do not pursue the prescriptive incentives that are still available to them.

Complexity and Time Investment of Program Participation

Another potential barrier to program participation related to the tiered-incentive component is that that the program can feel complex or “black-boxy” to participants. Four customers reported that they did not understand the calculations used to estimate their savings for the tiered incentives. However, all of these interviewees participated in 2016, and more recent program participants reported that program staff and the engineers assigned to their project are knowledgeable about the program and typically know the customer's needs.

One staff member summarizes this sentiment, referring to customer experiences that are corroborated by customer interviews:

“I know I’m [only] going to be talking to one of a total of five engineers between the two utilities. They get it, they know our aches and pains, they know the customer’s needs and we’re able to get clarity really fast.”

Individual staff report that they believe the program team does a great job communicating with participants, but most reported that participants may not understand the nuances of how cost-effectiveness is calculated, and why these calculations influence whether they qualify for program incentives. Staff interviewed by the evaluations team mentioned that participants can become frustrated if they don’t understand why one project qualified but a different one was rejected, and this frustration may disincline the customer to participate in the program again in the future.

Additionally, some program staff speculated that the program processes may seem slow to participants. The tiered incentive program component can require significant time for engineers from the utilities to review program staff calculations. One staff member mentioned:

“... [The approval process] feels slow to me. It feels clunky and slow, and two utilities have to evaluate [it]. There’s a lot of emails and communication that the implementer has to do with us to help push the project along, especially when it’s a Xcel and CenterPoint review... If the customer doesn’t see that, and above the water, they just see a duck floating along, and they don’t see the kicking underneath. . . . are we losing projects from moving forward, because the turnaround time is not where it needs to be?”

Program staff believe that this review time could cause participants to lose interest in the program. Some engineering staff felt that the engineering review time may be overly lengthy, as program staff now have a lot of experience with the program and the utility engineers rarely comes to different conclusions than the program staff.

Timeline to Complete Projects

Some stakeholders reported that they felt that the two-year project timeline was too restrictive and may limit participation. The two-year timeline, from the date the customer receives the audit report to when work needs to be completed, is viewed by stakeholders as a challenge for building owners. because the efficiency upgrades could be part of a larger scope of work that relies on outside financing packages with which there could be only one chance per year to apply for loans. This is perceived by stakeholders to increase upfront costs and present a barrier for building owners. However, customer interviewees, both non-participants and participants, did not report the two-year timeline restriction as a significant barrier to participation. In addition, customer interviewees did not report access to financing packages as a limiting factor in their ability to complete projects on time.

Once the free audit and direct install have been completed, stakeholders report that it can be difficult for owners to secure the necessary funds required to complete the custom packages outlined in the audit report. This is believed to lead to low participation in the tiered incentive program component. Many of these packages include measures with high initial cost, and stakeholders reported that it can be difficult for the owner to not only secure funds in such a short amount of time, but also with the burden of knowing that their project may not be approved if it does not meet the 15% savings target. Consequently, many landlords may be hesitant to commit

resources to a project without a guaranteed incentive amount from the utility. While four customer reported apprehension about a lack of guaranteed incentives from the utility, none mentioned the high initial cost of measures as a significant barrier to participation in the tiered incentive component.

Information Needs

Finally, several stakeholders reported that they perceived a need for additional energy efficiency education for landlords and tenants after they participate in the energy audit. One stakeholder mentioned that owners were coming back and saying the energy audit was great and quick, but that the language used by program staff was very technical and hard for owners to interpret.

Additionally, stakeholders suggested providing building owners and managers with additional education about the program benefits beyond the audit and direct install savings as a means for increasing participation in the tiered incentive component. Most building owners and managers confirmed this perspective, reporting that they had difficulty understanding some aspects of the tiered incentive program, including the use of technical language and savings calculations.

Comparison to Peer Utilities

The four peer organizations, when asked about barriers to program participation, most frequently cited the rebate approval process. A peer utility staff member noted:

“The lack of clarity around rebates can be a struggle for people because they don’t know what they’re getting until pretty late in the process, so if it’s something where they know that they want to replace their boiler and they need to do it now, we’re not very well-equipped to move swiftly on those kinds of things.”

Additionally, one peer utility identified that the long wait between applying for a custom rebate and receiving an answer from utility engineers is often frustrating for program participants. Since timelines are often not guaranteed, participants often wait for an indeterminate amount of time before their rebate is approved.

Furthermore, due to the length of time required to process a custom rebate as well as the lack of clarity surrounding how these rebates are calculated, two organizations also identified that the program can sometimes feel complex and opaque to participants. In their interview with the evaluation team, a peer utility staff member mentioned:

“I think that piece is frustrating with [property] owners because [there is no] clear expectation. It’s like, I could have 100%-funded lighting retro-fit at one property and then 50%-funded lighting retro-fit at another property, and they don’t know the mechanical systems and the things well enough to really understand why that would be, they just see that, ‘Well, you paid for all of it here, and you paid for half of it here, and I don’t like that. Where’s the rest of my money?’ I think [property] owners struggle with that.”

Three peer utilities identified that customers often lose interest in the program once work has been completed on an initial project. This demonstrates the difficulty of keeping participants engaged enough to come back as repeat participants in these types of programs.

2.4 Objective 2: Characterize Customer Experiences and Satisfaction

The second evaluation objective was to characterize the experiences of customers who participated in the MFBE program. The evaluation team drew from staff interviews, resident surveys, customer interviews, and peer program benchmarking interviews to (1) characterize the customer journey through the program, both for tiered incentive and audit and direct install participants, and (2) identify key drivers of customer satisfaction. Overall, customers reported high satisfaction with the MFBE program. The evaluation team found that customers were especially satisfied with the audit and direct install components of the program, which aligned with program staff perceptions of customer experiences. As mentioned in the previous section, the audit and direct install component were key motivators of participation in the program. As such, customers tended to have high expectations about the audit and the quality of information received, and these expectations were met or exceeded by the program. Though customer experiences were overwhelmingly positive, there were a few customers who noted trouble with communication during the initial component of the program (prior to the audit); this may be one opportunity for improvement.

In the following section, we provide more detailed results on customer experiences with the product. Table 2-3 summarizes data sources used to develop these findings.

Table 2-3. Data Sources Used to Characterize Participant Experiences

Participation Component	Staff Interviews (n=8)	Stakeholder Interviews (n=6 organizations; n=8 interviewees)	Resident Surveys (n=30)	Customer Interviews (n=25)	Peer program benchmarking Interviews (n=4)	Peer program benchmarking secondary data analysis (n=7)
Initial contact to audit				X		
Audit to direct install			X	X		
Post direct install				X		

To better understand how the program is designed to operate, the evaluation team asked program staff to outline the program's design and the expected customer journey through the program. This research was a key foundational step, as it allowed the evaluation team to compare the intended customer journey with the realized journey (as described in the customer interview results below). Program staff identified several key components of this journey, which include initial contact to free energy audit, audit to free direct install, and post-direct install tiered incentives. The following section provides more information about this journey as reported by program staff. For a more detailed map of the journey, please see Figure C-1 in Appendix C.

According to program staff, the program structure is designed to achieve immediate energy savings through low-cost improvements and move beyond the initial direct install measures to achieve deep

energy savings through custom-bundled, incentivized projects. During their interview, one program staff member stated:

“The ability for us to take a holistic view of the property from a usage standpoint and look at what you do in your apartment home and make changes there for appliances, ENERGY STAR appliances and that kind of thing that, that can benefit the property owner . . . [and] the overlap of commercial and residential to be able to be lumped up into one rebate bundle. . . . That makes this program really unique.”

In the following sections, the evaluation team compares this intended journey with the realized journey as expressed by participating customers. To better understand customer experiences with the program, the evaluation team interviewed customers to characterize the customer journey and assess satisfaction with the program. Customer interviewees generally expressed extremely high satisfaction with the program, although relatively few tiered incentive participants have gone through the MFBE program. The following sections explore customer experiences during the following phases: (1) learning about the program, (2) pursuing the audit and DI components, and (3) pursuing the tiered incentives. Together, these sections describe customer experiences and criteria for satisfaction with the MFBE program.

Learning about the MFBE Program

Most participants reported initially becoming aware of the MFBE program through utility marketing efforts (i.e., through the mail or through existing relationships with contractors or property managers who have past experience with the program). Some participants also reported reading a newspaper article about the program and seeking out further information upon recognizing they may qualify. Marketing sources of awareness generally attempt to persuade customers to make an initial phone call to gain more information and determine whether their properties may be a good fit. Some customers also visited the program website prior to contacting program staff. While these marketing materials did not provide customers with all the information they needed to make a decision about participation, interviewees did not expect the marketing material to do so; none indicated that calling for additional information about the application process was an unexpected step.

Although it did not dissuade them from participating in the MFBE program, six interviewees reported difficulties obtaining information about the program that they needed in order to make a decision about whether or not to proceed. Of these six respondents, five received a tiered incentive, while one received DI measures but did not participate in the tiered incentive. Some of these six customers felt that non-program utility staff lacked sufficient knowledge about the program to help customers connect with the correct program staff, as the following quote from a customer illustrates:

“I had to call a number of times, and I was kind of a dog with a bone on this. Early on, I called the general utility contact number. The person didn't have a clue of what was going on. And I don't know if I was one of the first ones, or it was a newer program, but, then they said, 'We'll connect you with somebody else ... we'll transfer you.' So that took time. I think another week passed and somebody else called and they said, 'Well, we don't handle that.' I finally did get to the department that handled it. So, initially, I felt that there was a lot of confusion about it, and I think if I wouldn't have been persistent I would have given up.”

For others, the primary challenge had to do with regularity of communication from program staff and the feeling that customers had to continually get in contact with the utility in order to ask questions or present information about their incentive instead of the other way around. For those customers who needed approval from executive boards prior to moving forward with projects, these communication challenges were particularly frustrating, as they felt they had to manage unpredictability and uncertainty on two fronts. As the customer quote above in the “Communication Difficulties During Audit and DI Participation” section indicates, while these customers are used to managing these challenges with their executive boards, they were disappointed to face similar challenges with program staff.

All but four customers the evaluation team spoke with continued on past this initial contact to receive an audit and direct install measures. Those who did not, however, exited the program due to misperceptions about program requirements. One individual in particular noted confusion about requirements to qualify for the program:

“For a low-income housing building, I think that they should adjust the [requirements to qualify], depending on the property itself... And we were only 52 units. That may have come into effect. I don't remember exactly, but that could've been a part of it, too. They should have different programs for different sizes of properties.”

While this represents just one case in which the property manager is unsure as to the details, the reasons proposed are not among those that would lead to disqualification. Ensuring that those who choose not to pursue energy efficiency projects through the MFBE program fully understand program requirements the first time they express interest may encourage them to apply at a later date.

Pursuing the Audit and DI Components

The audit and DI components of the customer journey apply to participants who moved past the initial contact and application components to receive an audit and/or a direct install. Some of the customers who participate in these program components moved forward to participate in the tiered incentive component, but the majority of customer interviewees (23 of 25) did not participate in the tiered incentive offering. While some audit and direct install participants received both the audit and the direct install and others only received the audit, the evaluation team has combined these program portions into a single step along the customer journey to reflect how interviewees categorized the components in their journey through the program.

As discussed in the previous section about key drivers of participation, customers highlighted this component of the program as the most motivating factor in their decision to participate. Customers were very satisfied with both the direct install and audit process. High satisfaction for the direct install process primarily stemmed from participants' sense that the program allowed them to save on energy bills while simultaneously upgrading equipment. Most participants did not receive significant feedback from residents, but the few complaints they did receive were related to faucet aerators in both showers and sinks, especially among residents who had purchased their own showerheads. Some participants who participated in the direct install prior to the program offering LED lightbulbs commented that they were disappointed to receive CFL bulbs instead of LEDs. One participant

who had CFL bulbs installed at one property and LEDs at another was pleased that the program had shifted towards the LED bulbs.

Customers were highly satisfied with the audit and report due to three primary factors: (1) the ability of the audit to meet their expectations, (2) the audit process itself, and (3) the education received about their building as a result of the audit. As one of the primary drivers for participation, participants had high expectations for the building audit that extend beyond the scope of the MFBE program. Notably, participants' main driver in completing the audit was to learn about energy efficiency opportunities for their properties. Whether they implemented these projects through this program, a different program, or on their own did not play a significant role in the decision to conduct the audit. This was especially true of individuals who regularly make energy efficiency upgrades; although they were aware at the time of application that their earlier upgrades would likely prevent them from reaching 15% savings, they saw the audit as an opportunity to help guide their thinking about energy efficiency upgrades as they continue to consider areas for improvement.

Customers were also satisfied with the process of receiving the audit, and all interviewees were highly satisfied with program staff. Although some interviewees did cite challenges with reaching program staff when calling their utility's general phone numbers, contact between the customer and program staff had improved after the customer participated in the audit. During the audit and direct install component, many participants specifically noted the professionalism and quality of communication. As education was a primary goal for many interviewees, satisfaction with this component was high due to the quality of the audit results, even if they were unable to move forward with tiered incentive projects due to out-of-reach ROIs and/or being unable to reach the 15% savings goal. The role of program staff aligned well with customers' educational goals, and strong communication between these parties led to high customer satisfaction in this component of the program.

Respondents to the resident survey also reported overall high satisfaction with their experience with the DI program component, although many of the respondents might be better characterized as ambivalent toward the experience. When asked if the installation of the equipment was an inconvenience to them, only 2 respondents (16% of the 13 respondents who answered the question) reported that they found the DI inconvenient. However, when asked to rate their agreement with a statement that "the installation of the equipment was worth it," respondents provided an average rating of 3.4 on a scale from 1 to 5, with 1 meaning strongly disagree and 5 meaning strongly agree. This suggests that respondents were more satisfied than dissatisfied with the installation of the equipment but were largely ambivalent. Finally, the majority of resident respondents (90%) disagreed or strongly disagreed with the statement "If I had the choice, I would not have had the equipment installed," suggesting that most residents were ambivalent about the installations rather than being actively dissatisfied with the installations.

Pursuing the Tiered Incentive Component

Few interviewed customers participated in the tiered incentive MFBE program component after the direct install and audit component. Most of the participants we spoke with who did not qualify for the tiered incentive component (18 of 25) were either unaware of the tiered incentive program component or their audit did not identify opportunities to achieve the 15% energy savings threshold required for participation in the tiered incentive component. The following quote is representative of this group's experience:

“I understand that this program was intended to be very all-encompassing. Like they come in and they just do a deep retro-fit of the building and capture as much as they can. I don't remember what it was, but then when we didn't qualify, clearly we were interested. It would have been nice to not be sort of just, ‘Oh, well you're out. Go find other information if you want to do pieces of this.’

In some cases, these were individuals who, though they regularly install energy efficiency upgrades, wanted direction from a third party to advise on which projects might get the most savings. Others had particular energy efficiency projects in mind (e.g. insulation), which the program does not offer incentives for due to cost-effectiveness limitations. These projects led customers to the program at a time when they were actively seeking out education about energy efficiency, and when they intended to install measures regardless of incentives available through the program. A third group of audit and direct install participants indicated that they were interested in the audit for benchmarking purposes, and although many expressed interests in and/or intention to implement energy efficiency measures, they had not yet made plans to do so.

One of the tiered-incentive participants did not report any difficulty selecting a contractor, but the other tiered incentive participant reported that they would like to have had more support in choosing a contractor:

“So, they were kind of like, ‘we can't really tell you where to go because we can't favor one company over another.’ But I think what would be more helpful is if they said, ‘hey, if you install all these light bulbs, you're going to save money and get a rebate, and here's where you should get these light bulbs.’ Instead of saying, ‘why don't you try and get these light bulbs, and then try to go find them on your own.’ And then me, the customer, ends up wasting time going to Home Depot or calling lighting guys or trying to figure it out. And then when you do get something, maybe it's not the product that you really should've bought.”

This complaint does not rise to the level of being a major theme, but we include it as a minority opinion among the interviewees.

Drivers of Customer Satisfaction

As mentioned in the previous section, customers were extremely satisfied with their experience in the program. In particular, customers were especially satisfied with the information they received during the audit and the free measures they received during the direct install. These two aspects of the program—also noted as key motivators for participation—met or exceeded most customers' expectations, leading to positive experiences with the program as a whole. Additional sources of satisfaction included positive interactions with program staff during the audit component and the education received during the audit and through the report.

The evaluation team also asked program staff about their perceptions of customer satisfaction with the program. Respondents mentioned that the program has consistently received positive feedback from participants. Similar to the customer interview results, program staff indicated that participants were especially satisfied with the ease of the direct install component of the program and with the energy savings that have occurred because of their participation. A staff member noted:

“[The program] really works for the customers who’ve been through the project management and done the projects. I get emails, phone calls. They’re working with other properties now and saying, “I want to do this because we saw this happen.” One property operations guy said, “We cut our sewer costs by \$700 a month after our direct install.””

Program staff also identified the single program implementer between both utilities as another source of customer satisfaction. Program staff stated:

“The goal is to really engage a disengaged group, and so the intent was to try to make it easy, which is why we have one implementer, to where they don't have to figure out do we go to Xcel, do we go to CenterPoint, who do we talk to there? They have one point of contact.”

Once a program participant’s application has been approved, the participant communicates primarily with program staff, and communication between utility representatives and the participant is typically relatively minimal throughout the course of the program. This gives the participant one point of contact to whom they can reach out with questions or concerns, and program staff believe that it is easier and simpler for the customer to stay engaged throughout the course of their participation. Though customer interviews did not indicate this as a satisfaction driver, program staff identify the single point of contact as a source of customer satisfaction.

Another source of satisfaction as identified by program staff is the flexibility it offers participants to use installers of their choice. While the program supports participants in making decisions about contractors, manufacturers, and vendors, the program does not partner with contractors, endorse specific manufacturers, or endorse specific vendors. A staff member noted in their interview:

“Our job is to give feedback without telling them what they should do. That’s a key part of our project management phase of the program is giving them feedback on the recommendations they get.”

This means that program staff can provide unbiased recommendations for each customer and can focus on recommending the optimal set of measures rather than specific vendors or contractors. This allows the utilities to step away from a decision-making role and help build trust with each program participant by being seen as providers of objective information.

2.5 Objective 3: Compare the MFBE Program with Other Multi-family Programs

The third evaluation objective was to compare the MFBE program with other peer utility programs across the country. To complete this effort, the evaluation team conducted an in-depth secondary data analysis of seven different multi-family programs across the country, as well as interviews with four of these utilities. These organizations include:

- Ameren Illinois
- Elevate Energy
- Energy Outreach Colorado
- New York State Electric & Gas (NYSEG)

- Pacific Gas & Electric (PG&E)
- Puget Sound Energy (PSE)
- Xcel Energy Colorado

Utility names have been replaced with codes in later sections to preserve anonymity.

The section includes a review of program design at each peer organization included in this study, key performance indicators such as savings and participation goals, and participation requirements by each organization included in the study. The evaluation team found that the peer utility experiences varied widely, both in design and in key performance indicators. Overall, the MFBE program appears to be performing well in comparison to peers. In particular, the MFBE program has a similar number of participants compared to its peers. However, the program does have lower energy savings per dollar spent than some of its peers; this may be due to the high energy savings threshold requirements and participants' desires to participate in the audit and direct install only, rather than the tiered incentive.

Table 2-4. MFBE Evaluation Framework

Primary Research Objectives	Staff Interviews (n=8)	Stakeholder Interviews (n=6 organizations; n=8 interviewees)	Resident Surveys (n=30)	Customer Interviews (n=25)	Peer program benchmarking Interviews (n=4)	Peer program benchmarking secondary data analysis (n=7)
Compare with peer utility programs					X	X

Program Design and Operation

The evaluation team compared the MFBE program structure to seven other peer programs. As a way to ground this analysis, the evaluation team first categorized key elements of the program design and operation for each program. To begin, the evaluation team identified how long each program had been in operation; Table 2-5 provides this information for each peer utility. The peer programs for each of these organizations had a wide distribution of years of operation, ranging from two to twelve years. Four of the utilities had only been operating their MF programs for two or three years, while the other three had been operating for at least ten years.

Table 2-5. Tenure of Multi-family Programs by Peer Organization

Organization	Years in Operation
Peer Organization A	2 years
Peer Organization B	12 years
Peer Organization C	2 years
Peer Organization D	11 years
Peer Organization E	10 years
Peer Organization F	3 years
Peer Organization G	3 years

Next, the evaluation team compared the components included in each program. This comparison is key to understanding the context for each program and what may or may not be applicable to Xcel Energy and CenterPoint Energy. Table 2-6 provides an overview of each type of program component present at each peer organization.

Table 2-6. Program Components by Peer Organization

Organization	Free Energy Audit	Free DI Measures	Prescriptive Rebates	Custom Rebates	Contractor Recommendations	LI-specific Incentives
Xcel Energy MN / CenterPoint Energy	X	X	X	X		X
Peer Organization A	X	X		X	X	X
Peer Organization B	X	X	X	X	X	
Peer Organization C	X	X		X		X
Peer Organization D	X	X	X	X		X
Peer Organization E			X			X
Peer Organization F		X	X	X		
Peer Organization G		X	X			

Each of the eight different organizations included in this study (including the seven peer organizations included in the secondary analysis as well as the Xcel Energy/CenterPoint Energy MFBE program) has a unique program structure that is made up of five key components: an energy audit, direct install measures, prescriptive incentives, custom incentives, and contractors recommendations, if needed to perform projects.

Five out of eight organizations perform free energy assessments for participants that provide initial recommendations for measures and areas for improvement.

- Four out of eight organizations conduct this audit with implementation staff.
- One out of eight organizations work with a “building solutions provider” who submits an application to the utility for the customer. The provider will also conduct the building

assessment, calculate savings, and work with the customer to develop final recommended building improvements.

All eight organizations provided direct install measures for participants. The measure portfolio typically includes some combination of:

- Boiler tune-ups
- Interior LED lamps, fixtures, and exit signs
- Exterior LED fixtures, including wall packs, floodlights, canopy lights, and pole lights
- Occupancy sensors
- ShowerStar showerheads and adaptors
- WaterSense labeled faucet aerators
- Water heater pipe insulation
- Programmable digital thermostats
- 3 tier advanced power strips
- Weatherization services

Five out of eight organizations offered prescriptive incentives for participants for specific measures installed beyond the direct install measures. These prescriptive measures include:

- Air sealing
- Insulation
- Refrigerator decommissioning
- Heat pump water heater
- Tankless water heater
- ENERGY STAR-qualified ventilation system
- Windows and sliding glass doors

Six out of eight organizations offered custom incentives for participants. These incentives were calculated for each participant by the utility and are based on project cost, projected savings, and equipment type.

Three out of eight organizations either recommend specific contractors for improvement projects or have a pre-approved contractor network that participants can choose from.

- In order for contractors to be included in the pre-approved network, they must meet certain metrics and performance criteria.

The portfolio of measure offerings varies across the eight different utilities included in this study. For a detailed breakdown of these measures, please see Table 2-7 below.

- Eight out of eight organizations offer incentives for lighting measures such as occupancy sensors, common area lighting upgrades, and exterior lighting fixtures.

- Six out of eight organizations offer custom incentives that allow participants to bundle certain measures together to create a unique upgrade package that suits their own building's needs.
- Three out of eight organizations offer incentives for envelope and air sealing measures.
- Two out of eight organizations offer incentives for EnergyStar appliances.
- One organization offers incentives to offset a portion of the cost of a comprehensive energy (ASHRAE Level 2) and combustion safety assessment.

Table 2-7. Measures Offered by Peer Organizations

Peer Organization	Measure	Rebate Type	Low Income /Market Rate
Peer Organization A	Custom upgrades	Custom	LI
	Direct install measures (LEDs, water-saving showerheads, water-saving faucet aerators, water heater blanket)	Free	
Peer Organization B	Direct install measures (LED bulbs, showerheads, faucet aerators, pipe insulation)	Free	MR
	Air sealing	Custom	
	Insulation	Prescriptive	
	Energy Star Appliances	Prescriptive	
	Refrigerator decommissioning	Prescriptive	
	Common area lighting	Calculated	
	Custom upgrades	Calculated	
Peer Organization C	Direct install measures (LEDs, high efficiency shower heads, high efficiency faucet aerators)	Free	LI
	Custom upgrades	Custom	
Peer Organization D	Direct install measures (LEDs, programmable thermostats, advanced power strips, boiler tune-ups, weatherization services)	Free	LI
	Custom upgrades	Custom	
Peer Organization E	Air sealing	Prescriptive	MR/LI
	Insulation	Prescriptive	
	Direct install measures (LEDs, high performance showerheads, faucet aerators, programmable thermostat)	Free	
Peer Organization F	Custom upgrades from four categories (envelope, HVAC, domestic hot water, lighting and appliances)	Custom/ tiered	MR
	Interior lighting fixtures	Prescriptive	
Peer Organization G	Occupancy sensors	Prescriptive	MR
	Exterior Lighting Features		
	Weatherization		

Three of the four organizations interviewed mentioned planned additions to their current measure offerings. These measures included evaporative cooling, envelope sealing, and smart thermostats. All of the organizations interviewed for this study reported that lighting was the most popular measure installed by program participants. In addition to the measures listed above, Peer Organization F also offers an incentive for customers who pursue an audit through a third-party company (i.e., a company that conducts energy audits but is unaffiliated with the utility or implementor staff).

Requirements for issuing incentives also varied across organizations. While the Xcel Energy and CenterPoint Energy MFBE program requires at least 15% energy savings and positive societal test scores, three organizations reported that the measure must have positive societal test scores or total resource cost scores and did not specify required energy efficiency targets. One organization reported that, in order to receive a rebate each measure had to pass a cost-effectiveness test, but that funding levels for each rebate were up to their discretion as long as the savings goals for the program were met for each year. Another organization requires that projects must improve building energy efficiency by 10% from existing conditions and that, in order to receive funding, a participant must install a minimum of two upgrade measures in at least two of the four measure categories (envelope, heating/cooling, water heating, and appliances/lighting).

Key Performance Indicators

Next, the evaluation team collected information on key performance indicators, including: (1) target and achieved program savings, (2) annual budgets, (3) program participation goals, and (4) program participation requirements. While information regarding reported savings was not available for all benchmarked programs, the data indicates no clear trend in savings goals across organizations. Several organizations reported savings that were three to four times higher than other organizations. When viewed in tandem with annual budget, however, organizations with higher budgets typically have higher savings. It is also important to note that reporting for budgets is inconsistent across programs and utilities, which may produce some inconsistencies in how these values are benchmarked against each other. In an effort to counteract this, the evaluation team calculated a normalized estimate of savings (represented as annual BTU savings) achieved per dollar of program budget where possible.

Table 2-8. Benchmarked Energy Savings by kWh and dth

Organization	Program Type*	Year	Program Budget	Annual Savings in BTU	Annual BTU per \$1 of Budget
Peer Organization A	LI	2017	\$3.5 MM	1.9 MM	0.5
Peer Organization B	MR	2017	Unavailable	17.6 MM	Unavailable
Peer Organization C	LI	2017	\$3.2 MM	5.8 MM	1.8
Peer Organization D	LI	2016	Unavailable	Unavailable	
Peer Organization E	MR/LI	2017	\$1.3 MM	4.4 MM	3.4
Peer Organization G	MR	2017	\$1.8 MM	Unavailable	Unavailable
Peer Organization F	MR	2018	\$1.2 MM	3.6 MM	3

MR = Market rate, LI = Low-income. Reported savings values are rounded for consistency.

Xcel Energy MN includes prescriptive savings in their Multi-family program, CenterPoint Energy counts Multi-family prescriptive savings towards other programs.

Table 2-9 below provides information regarding participation goals at each utility. Similar to the information reported above, participation goals were not communicated consistently. Some organizations reported goals as the number of apartment units that participated in the direct install, one organization reported goals as the number of audits completed, and one organization report goals as whole building participants. Additionally, some goals presented below represent estimates reported by the utility representative rather than official values.

Table 2-9. Program Participation Goals

Organization	Program Type	Years	Participation Achieved	Participation Goal	Participation Goal Type
Peer Organization A	LI	2017	2,565	-	Apartment units
Peer Organization B	MR	2017	3,750	-	Apartment units
Peer Organization C	LI	2017	-	900	Audits
Peer Organization D	LI	2016	-	-	-
Peer Organization E	MR/LI	2017	-	3,000	Apartment units
Peer Organization G	MR	2017	-	-	-
Peer Organization F	MR	2018	-	150	Buildings

**MR = Market rate, LI = Low-income*

Program Participation Requirements

The peer organizations included in this study had a distinct set of program participation requirements across the seven different organizations included in this study. Table 2-10 below provides a detailed breakdown of these requirements across organizations.

Table 2-10: Peer Organization Participation Criteria

Organization	Direct Install Participation Requirements	Custom Rebate Requirements
Peer Organization A	<ul style="list-style-type: none"> • Building has 5 or more units • Building has a central heating system • 67% of Building population is at or below 200% of the federal poverty level • Pay utility for energy bills 	<ul style="list-style-type: none"> • Pass a cost-effectiveness test • Positive societal test result
Peer Organization B	<ul style="list-style-type: none"> • Classification of property as a "campus" • Pay utility for energy bills 	<ul style="list-style-type: none"> • Pass a total resource cost test
Peer Organization C	<ul style="list-style-type: none"> • Be an IRS designated 501(c)3 non-profit • Serve an income-qualified community as a central part of building mission. • Own or have a long-term lease of the building (government-owned buildings do not qualify). • Pay utility for energy bills 	<ul style="list-style-type: none"> • Positive societal test result
Peer Organization D	<ul style="list-style-type: none"> • Meet specific income requirements • Pay utility for energy bills 	<ul style="list-style-type: none"> • Unknown
Peer Organization E	<ul style="list-style-type: none"> • Multi-family properties containing (3) or more individual residential units • Multi-family properties with a high number of income-eligible customers • Public housing authorities 	<ul style="list-style-type: none"> • Unknown
Peer Organization G	<ul style="list-style-type: none"> • Pay utility for energy bill • Building has 5 or more units • Building is an existing building • Participant must complete program 	<ul style="list-style-type: none"> • Projects must improve building energy efficiency by 10% as compared to existing conditions • Install a minimum of two upgrade measures in at least two of the four measure categories (envelope, heating/cooling, water heating, and appliances/lighting).
Peer Organization F	<ul style="list-style-type: none"> • Residents or owners/agents of apartment and condominium complexes 	<ul style="list-style-type: none"> • None

Customer Satisfaction Across Peer Organizations

To understand how the peer programs compared to the MFBE program, the evaluation team also asked peers about key drivers of customer satisfaction with their programs. The peer organizations interviewed noted two key drivers: (1) the ability to offer custom incentives, and (2) the enhanced relationship between the customer and the utility via the program. This section details each of these drivers below.

One organization noted that while custom incentives can complicate the program for program participants, custom incentives remain a strong component. Because program staff can create a custom package that works for each individual participant, the program has the ability to be much more inclusive to all multi-family units interested in the program. This allows for the program to be less restrictive and reach far more people than a standard prescriptive program. One peer utility staff member stated:

“I think what makes people immediately happy is the ease of participating in the program but, really, what keeps them coming back is seeing that they can cancel out line items in their operating budget, or significantly reduce them, by offsetting them with rebates.”

Two peer utility program managers also identified the ease of communication as a key driver of program satisfaction. Instead of calling a customer service line, the participant has a dedicated staff member that is willing to help them discuss potential projects and potential savings opportunities. Additionally, one organization reported that if a customer is initially denied a rebate, the organization will continue to work with the customer until their rebate is approved. One program manager noted:

“[We have a] full on-site team dedicated to handling a full-on processing of rebates. Projects aren’t rejected. We work through that with them, because they are all trying to work towards the same goal.”

3. CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the evaluation team’s key findings and associated recommendations regarding the Xcel Energy and CenterPoint Energy MFBE program in Minnesota. All recommendations are based on key findings from our evaluation research and are designed to reflect the context of future program years, acknowledging expected changes in the market and planned program changes.

The evaluation team found that, overall, building owners, building managers, and residents are very satisfied with most components of the current MFBE program. Staff and stakeholders report program processes are generally running smoothly, though they would like to see more participation in the tiered incentive program component. Although the majority of customers reported high satisfaction with their experiences in the program, few audit and direct install participants reported strong motivations to participate in the tiered incentive program offering. Additional key findings from the evaluation research included:

- **Key Finding 1: Participating building owners and managers overwhelmingly reported that they had positive experiences with the program, with communication issues at the outset of participation as an occasional exception.** All participants reported positive experiences with the program—particularly with the audit and direct install components. Participants had universally good experiences with program staff and typically reported that their experience with the program exceeded their expectations, which were typically high going into the program. Complaints were generally limited to reported issues with (1) reaching the appropriate MFBE program staff when customers called Xcel Energy or CenterPoint Energy and (2) perceived occasional slowness in responses from program staff during the initial intake process.
 - Recommendation 1a: Maintain existing implementor practices for conducting audits and installing DI measures.** The available evidence suggests that participants find them both educational and a good use of their resources.
 - Recommendation 1b: Revisit communication practices for initial program contact, prioritizing timely responses to inquiries.** Ensure that staff handling Xcel Energy and CenterPoint Energy touchpoints are equipped with information to direct interested customers to MFBE program representatives.
- **Key Finding 2: Most building owners and managers reported that they were primarily motivated to participate in the MFBE program because of the prospect of cost savings and educational benefits associated with the audit and direct install program components.** The building audits and direct install measures were overwhelmingly cited as the primary motivation to participate in the program. This is consistent with the program design, which emphasizes engaging participants with straightforward, low-cost DI measures as an entry-point for deeper savings. Most participants viewed the tiered incentive program component as a “nice-to-have” bonus and not a primary motivation to participate. Several audit and direct install participants indicated that they did not wish to participate in the tiered incentive component given the logistical challenges involved with securing approval from their organizations.

Recommendation 2: Revisit the marketing approach for the tiered incentive program component.

While the audit and direct install program components draw large numbers of participants, potential deeper savings from lost tiered incentive participation are going unrealized. As part of efforts to encourage more participation in the tiered incentive custom program components, program staff can direct resources toward enhancing their messaging approaches for encouraging participation in the tiered incentive custom program component. In conjunction with completing the other recommendations, an increased focus on driving tiered incentive savings may increase program savings.

- **Key Finding 3: Primary barriers to participation in the tiered incentive component of the MFBE program included longer-than-desired payback periods and difficulty qualifying.** Barriers to participation in the tiered incentive component included (1) longer payback periods than some respondents desired and (2) lack of eligibility due to inability of many properties to achieve the minimum 15% energy savings threshold cost-effectively.

Recommendation 3: During initial contacts or audits, continue to probe for the internal project approval requirements of the interested customer. Identifying internal logistical hurdles to a customer participating in the tiered incentive program can provide an opportunity to be proactive about addressing that hurdle or signal the need to be particularly swift in responding to communications from these customers.

- **Key Finding 4: Primary barriers to participation in the audit and direct install components of the MFBE program included the logistical hurdles involved in initiating projects and challenges navigating program processes.** Barriers to participation in the audit and direct install program components included (1) many participants' limited authority to make decisions about approving MFBE projects without approval from more senior staff and/or executive boards of their organization and (2) program processes that are sometimes perceived as complex or slow.

Recommendation 4: Seek opportunities to reduce program complexity and speed program processes. Several participants and near-participants reported that they perceive the program processes to be complex and slow, reducing near-participants' willingness to participate in the audit and DI components and reducing audit and direct install participants' willingness to participate in the tiered incentive custom program component. Alongside other efforts to increase participation, re-visit program processes to address areas of unnecessary complexity or delays.

- **Key Finding 5: The MFBE program offerings are comparable to the most comprehensive multi-family energy efficiency programs offered by peer utilities.** The evaluation team identified six core services offered by peer utility multi-family programs:

7. Free energy audits,
8. Free DI measures,
9. Prescriptive rebates,
10. Custom rebates,

11. Contractor recommendations, and
12. LI-specific incentives

The MFBE program offers five of these six services (all but *contractor recommendations*). Of the seven peer utility programs three peer utility programs offered between three and five of these services, positioning the MFBE program as one of the most comprehensive multi-family programs studied.

No Recommended action. Program offerings are aligned with other multi-family programs.

- **Key Finding 6: Eligibility criteria for custom or tiered incentives differ significantly between utilities.** The MFBE program contains all major program offerings of other utilities' multi-family programs. While the MFBE program requires meeting a 15% savings threshold, criteria for participation among peer utilities are typically less restrictive in terms of energy savings (e.g., a 10% savings threshold) but may be more restrictive in terms of the required diversity of measures (e.g., requirement to install measures from at least two of four measures categories, including envelope, heating/cooling, water heating, and appliance/lighting).

Recommendation 5: Re-examine the savings threshold for participation in the tiered incentive program component to determine whether a reduction in the minimum savings for participation in this component is warranted to achieve program goals. While this evaluation did not find sufficient evidence to support an unequivocal recommendation to adjust the tiered incentive participation criteria, the evaluation team recommends reconsidering these criteria in light of several suggestive findings. Among these is the finding that only 31% of buildings that have received an audit through the program have qualified for the tiered incentive program component. In addition, several customers reported that they felt that the savings requirements were too strict. Many of these customers reported that they planned to install the suggested measures on their own once they learned that they did not qualify for the tiered incentive.

APPENDIX A: EVALUATION PLANNING DOCUMENTS

A.1 Evaluation Plan

Objectives

The overall objectives of this evaluation include providing Xcel Energy and CenterPoint Energy with recommendations for how to improve the effectiveness and efficiency of the MFBE program. In addition, this evaluation will assess the influence of various programs components on building owners, property managers, and tenants. Note that due to limited budget, this evaluation does not include the development of a point estimate of program influence (i.e., a net-to-gross ratio).

Instead, our research will provide directional estimates of program attribution and market effects and recommendations for how program staff can maximize influence on building owners and facility managers. EMI Consulting will develop specific research objectives for MFBE program as part of detailed evaluation planning.

Tasks

- **Kick-off Meeting:** The evaluation team will conduct an in-person kick-off meeting with CenterPoint Energy and Xcel Energy staff. These meetings will introduce our team and communicate our plan. Importantly, these meetings will establish rapport to ensure efficient and effective collaboration throughout the study. Following these meetings, the evaluation team will prepare and submit meeting minutes summarizing key discussion points and decisions made.
- **Staff Interviews:** The evaluation team will interview key program staff, including program managers, administrators, account managers, call center agents, and other operational staff to formulate a deeper understanding of the programs in order to assess overall effectiveness and opportunities for improvement. For planning, we have assumed 8 staff interviews - four at each utility.

This task includes a review of program documentation and program tracking data to develop a complete understanding of the program. Note that this includes aggregating and merging data from both CenterPoint Energy and Xcel Energy to ensure all customer research and analysis capture both sets of customers.

At the conclusion of this task, the EMI Consulting team will provide a final evaluation plan (using this document as a foundation) that documents the specific research objectives and activities for the remainder for the study.

- **Stakeholder Outreach:** Given the number of external stakeholder groups involved with multi-family properties in the Xcel Energy and CenterPoint Energy service territory, EMI Consulting will conduct 60-minute interviews with program stakeholders after the finalization of the evaluation plan. The objective of these interviews will be to review the evaluation plan with the stakeholder groups and obtain feedback on the direction of our research. In addition, these interviews will serve as an opportunity to introduce these stakeholders to the evaluation process and familiarize them with the study design in advance of research results. We estimate that we will need to conduct outreach with five groups and will develop the list of stakeholders during project kick-off discussions.
-

- **Customer Research:** The EMI Consulting team will conduct primary research with program participants (including building owners, facility managers, and tenants) and near- participants (including building owners and facility managers that were approached by the program but declined to participate) to address the research objectives. These data will inform our assessment of the effectiveness and impact of the programs from the perspective of customers at multi-family properties, providing data on performance, awareness, program influence, and barriers to participation.

As part of this task, we will complete 30 interviews with a mix of facility managers and building owners. As part of these interviews, we expect to sample both participants and near-participants based on a comprehensive review of Xcel Energy and CenterPoint program tracking data, stratified by their project tier level (projects that meet or exceed a 15% energy reduction are considered Tier 1 projects). In addition, for some facilities, we expect to interview two respondents - the building owner and the facility manager - to obtain a holistic perspective on program participation. EMI Consulting will determine a final sample upon review of program data from Xcel Energy and CenterPoint Energy.

Finally, assuming the availability of tenant information, we will also conduct a brief opt-in web survey with tenants of properties that received in-unit upgrades. This survey will assess satisfaction with the product and the in-unit upgrade.

- **Peer Utility Benchmarking:** The objective of the peer utility benchmarking task is to understand the effectiveness of program design, delivery, and processes by comparing the MFBE program with similar peer utility programs. For planning purposes, we have assumed six utility interviews. The evaluation team will work with program staff to identify relevant peer utilities for inclusion in this task.
 - **Reporting:** This final task includes the synthesis of findings from our research efforts, the development of a presentation of findings, and a final summative report. EMI Consulting will submit the draft report and present the findings and recommendations to program staff. After collecting feedback on the draft report, the evaluation team will deliver a final report that includes an executive summary, methods, task-specific findings, overarching synthesis, and conclusions and recommended actions.
 - **Project Management:** Throughout the evaluation, EMI Consulting will manage all activities to ensure a timely delivery of high-quality research product. This includes regular check-in meetings with program, weekly status update emails, and monthly progress reports documenting project progress.
-

Deliverables

Table 1 below includes a preliminary list of deliverables by task.

Table A-1. Deliverables by Task

Task	Deliverables
Kick-off Meetings	Kick-off meeting presentation; contact list; kick-off agenda and minutes within one week of meeting; program data request.
Program Staff Interviews	Draft and final program staff interview guides. Final evaluation plan (including sampling plan).
Stakeholder Outreach	List of targeted stakeholder groups, Stakeholder outreach topic guide.
Customer Research	Draft and final survey/interview guides; data collection progress reports; summary of survey/interview findings.
Peer Utility Benchmarking	Peer utility list for each program; draft and final interview guide.
Reporting	Preliminary results workshop, draft and final summative report, results presentation.
Project Management	On-going monthly progress reports and weekly status emails.

APPENDIX B: DATA COLLECTION DOCUMENTS

B.1 Program Staff Interview Guide

Introduction

This guide is to be used to interview staff associated with the Multi-Family Building Efficiency Program – a joint offering of Xcel Energy and CenterPoint Energy. The interviews will be semi-structured, with these questions serving as a basic guide for experienced EMI Consulting staff during interviews. 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 might support or hinder the achievement of program objectives
- Assess the extent to which the program design is achieving desired program goals
- Assess the extent to which the type, amount, and distribution of program resources might support or hinder the achievement of program objectives
- Collect staff feedback on implementation successes and challenges
- Identify themes and issues for possible revisions to the evaluation plan

Interview

Section A: Introduction

[If staff was not included in kick-off meetings:] First we would like to give you some background about who we are and why we want to talk with you today. EMI Consulting is an independent consulting firm that works with electric and gas utilities to review and improve program operations and delivery. EMI Consulting is sub-contracting with other leading national firms to perform this evaluation- including Evergreen Economics, Rick Ridge and Associates, and Apex Analytics.

Xcel Energy and CenterPoint Energy contracted with us to perform an evaluation of their portfolio of energy efficiency programs and we're currently in the process of conducting interviews with product managers and key staff involved in designing and delivering the portfolio to improve our understanding of Xcel Energy's and CenterPoint Energy's DSM programs and their influence on customers. As the MFBE program is a joint offering with CenterPoint energy, we will be working with both Xcel Energy and CenterPoint Energy for this evaluation. We also want to understand what will be useful for you as program staff, and we want to incorporate your priorities into our study so that the results are as useful as possible.

[ALL] Thank you for taking the time to speak with me today. My objective for this meeting today is to gain a deeper understanding of this program, what Xcel Energy and CenterPoint Energy hope to achieve through implementing this program, how it operates, and a bit about your experiences with the MFBE 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 reporting our findings in aggregate with other program staff interviews.

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

A1. [If needed] First, can you take a moment and explain your role and scope of responsibilities with respect to ? [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?

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 MFBE?

B1a. Do you have specific goals for individual components of the program that are relevant to your role (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 the “indicators of success” for MFBE from your point-of-view?

B2a. What are some indicators that would tell you that the program is or is not meeting its objectives or goals?

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

B3a. What was the rationale for changing them?

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

- B4.** What influences do you think this program has had on the market? On other Xcel Energy or CenterPoint Energy programs or products?

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.** Aside from incentives, what tools does the program use to achieve its goals?
 - C1b.** What are the requirements for program participation? Do you feel that these are appropriate? Why or why not?
 - C1c.** What activities do program and implementer staff engage in to achieve program goals?
 - Marketing?
 - Financial assistance?
 - Applications?
 - Technical assistance?
 - Education?
 - Contractor/Trade Partner support?
 - Drop ship/direct install?
 - C1d.** What tools are used to reach out to customers and/or market partners?
 - C1e.** What are the participation steps from a customer perspective?
- C2.** Are these program activities modeled on another program or set of programs?
- C3.** Have any of these incentives changed in the last few years? What was the rationale for changing them?
- C4.** Have any of these activities changed in the last few years?
- C4a.** What was the rationale for changing them?
 - C4b.** In your opinion, how have these changes affected the program's operations or its outcomes?
 - C4c.** Have you measured how these changes impacted savings or participation?

Section D: Resources

- D1.** What resources do you rely on to implement the program?
- D1a.** Program, implementer, sales staff?

- D1b.** Management and program direction?
- D1c.** IT tools and data tracking tools?
- D1d.** Other resources?
- D2.** Are these resources sufficient to implement the program as designed?
 - D2a.** [IF NO] How could the program design/implementation change to be more effective or efficient? What additional resources would help you implement the program as designed?
 - D2b.** [ALL] Are there any ways in which the program is implemented differently than designed, but that you feel actually improve on the program design?
- 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?
- D4.** How do you expect the program to change in the future?

Section E: Program Tracking and Reporting

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 MFBE?
- E3.** Are there any data that you would like to collect for MFBE, but haven't been able to?
- E4.** Are there any data/documentation not tracked in a CRM that might be helpful for the evaluation?
- E5.** As part of our evaluation, we will likely want to speak to "near-participants," customers who were eligible to participate in the program, showed some interest in program participation, but didn't participate for whatever reason.
 - E5a.** Would customers who showed interest in the audit/direct installs be tracked in your CRM?
 - E5b.** Would customers who showed interest in completing the recommended projects be tracked in your CRM?

- E6.** [For Engineering Staff] What kind of baseline does the program use to estimate energy savings? Do you feel that the savings estimation methodologies are appropriate? Why or why not?

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 MFBE 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?
- F4.** What do you believe are the biggest barriers to getting customers and/or market partners to participate in audit/direct install?
- F4a.** What do you believe are the biggest barriers to getting customers to participate in completing the recommended projects?
- F5.** Are there any specific opportunities for improvement in the design or implementation of the program? Please describe.
- F6.** What would you like to see changed in how the program is designed or run, if anything?
- F6a.** Do you think there are any roadblocks preventing these changes from happening?

Section G: Closing

- G1.** Do you have particular questions that you would like to see answered by the evaluation? Why are these questions important?
- G2.** To gain a better understanding of the program and to ensure we are keeping stakeholders in the loop, we are planning on talking with some of MFBE's stakeholders outside of the utilities or Energy Insight. Are there any stakeholders who you think would be particularly helpful for us to speak with?
- G3.** Do you have any other comments, concerns or suggestions about the program that we didn't discuss that you would like to make sure I know about?

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

B.2 Stakeholder Outreach Guide

Introduction

This guide is to be used to interview stakeholders associated with the Multi-Family Building Efficiency Program – a joint offering of Xcel Energy and CenterPoint Energy. The interviews will be semi-structured, with these questions serving as a basic guide for experienced EMI Consulting staff during interviews. As a guide for semi-structured interviews, these questions will not necessarily be asked verbatim, but will serve as a roadmap during the conversation.

Stakeholder Interview Research Questions or Objectives

- Introduce stakeholders to final evaluation plan and familiarize them with the study design in advance of research activities
- Collect stakeholder feedback on the final evaluation plan and the direction of planned research activities
- Collect stakeholder feedback on implementation successes and challenges

Interview

Introduction

First, we would like to give you some background about who we are and why we want to talk with you today. EMI Consulting is an independent consulting firm that works with electric and gas utilities to review and improve program operations and delivery. EMI Consulting is sub-contracting with other leading national firms to perform this evaluation- including Evergreen Economics, Rick Ridge and Associates, and Apex Analytics.

CenterPoint Energy and Xcel Energy have contracted EMI to perform a joint evaluation of the Multi-Family Building Efficiency (MFBE) program as specified in the reply comments by CenterPoint Energy and Xcel Energy and as noted in Department of Commerce's approval of the program in 2015. As part of the scope of this evaluation, EMI is contacting key program stakeholders that have been identified by CenterPoint Energy and Xcel Energy in order to understand your priorities and how they can be used to build recommendations that are as useful as possible.

Thank you for taking the time to speak with me today. My objective for this meeting today is to introduce you to our evaluation plan, gather feedback on the design of the program, program performance, desired outcomes of the program, and learn about your experiences with the MFBE program and how the multi-family market sector approaches energy efficiency. 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 reporting our findings in aggregate with other program staff interviews.

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

- A1.** [If needed] First, can you take a moment and explain your role and responsibilities within your organization and your organization's role with respect to the MFBE program? [IF ALREADY KNOWN, REWORD TO CONFIRM]

A1a. How did you become interested in advocating for energy savings in multi-family properties?

Probes:

- What is the mission of your organization?
- Have you held any positions previously?
- How long have you been involved with this organization?
- How has your organization participated in either the development or implementation of the MFBE program?
- How has your organization been involved (if at all) with the MFBE program since it was implemented?

Evaluation Plan Feedback [Required]

B1. As part of this evaluation, we will conduct primary research with program participants, including building owners and facility managers that completed improvements as well as “near participants” that approached the program but declined to participate. These data will inform our assessment of the effectiveness, impact, strengths, and challenges of the program from the perspective of customers at multi-family properties. This data collection effort will also inform analyses of program processes, customer awareness, program influence, and barriers to participation. We plan to complete 30 interviews with a mix of facility managers and building owners.

We also plan to conduct a brief opt-in web or paper survey with tenants on properties that have received in-unit upgrades. This survey will assess satisfaction with the program and the in-unit upgrades.

B2. Do you have questions about the evaluation plan?

B3. Do you have concerns about the evaluation plan?

Strengths and Challenges [Required]

Next, I'd like to get your feedback on how the program is running.

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

C1. In your opinion, what are the strengths of MFBE as it is currently being run?

C1a. What would you say is working well in terms of program design or implementation?

C2. What are the most significant challenges for this program at this point?

C3. What feedback, if any, do you receive from customers and/or market partners on the program?

C4. What do you believe are the biggest barriers to getting customers and/or market partners to participate in audit/direct install?

C4a. What do you believe are the biggest barriers to getting customers to move past the audit and direct install phase and complete recommended larger energy efficiency projects?

- C5.** Are there any specific opportunities for improvement in the design or implementation of the program? Please describe.
- C6.** What would you like to see changed in how the program is designed or run, if anything?
 - C6a.** Do you think there are any roadblocks preventing these changes from happening?

Closing [Required]

- D1.** Do you have questions that you would like to see answered by the evaluation? Why are these questions important?
- D2.** Are there any multi-family sector energy efficiency programs that you think of as top performers? What sets those programs apart from others?
 - D2a.** How long have they been in the market?
 - D2b.** Who do they target – renters or property owners/managers?
 - D2c.** Do you consider them to be successful?
 - D2d.** What is your measure of success?
- D3.** Do you have any other comments, concerns or suggestions about the program that we didn't discuss that you would like to make sure I know about?

Thank you very much for taking the time in assisting us with this evaluation. If I come up with any additional questions that come from this interview, would you be willing to have a brief follow-up call and/or communicate by email?

Desired Program Outcomes [as time allows]

I'd like to be sure I understand the desired outcomes of the MFBE program from your perspective.

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

- E1.** Can you take me through the key outcomes you would like to see for the MFBE program?
 - E1a.** Do you have specific desired outcomes for individual components of the program that are relevant to your role at your organization?
 - E1b.** Are you particularly interested in any potential non-energy benefits from this program?
 - E1b1.** Do you have any immediate desired outcomes? For example, participation goals, customer engagement goals?
 - E1b2.** What about any longer-term outcomes? For example, reducing greenhouse gas emissions? Altering market behaviors?
 - E1b3.** As CIP funding for the MFBE program is linked to energy reduction, what role do you feel the program can play in driving and achieving these non-energy benefits that would accrue to customers?

E2. What are the “indicators of success” for MFBE from your point-of-view?

E2a. What are some indicators that would tell you that the program is or is not meeting its objectives or goals?

E3. What influences do you think this program has had on the market? On other Xcel Energy or CenterPoint Energy programs or products?

Program Activities [As time allows]

[TAILOR BASED ON WHAT IS ALREADY KNOWN]

F1. Aside from incentives, what are the tools that are/would be most valuable to helping the program achieve its goals?

F2. What is your understanding of the requirements for program participation? Do you feel that these are appropriate? Why or why not?

F3. Are these program activities modeled on or related to another program or set of programs? For example: the effort to coordinate this program with the Minnesota Housing Finance Agency’s RFP.

F4. Do you perceive any major changes in the multi-family market (particularly as it relates to energy efficiency), since the inception of MFBE (2015)?

F4b. In your opinion, how have these changes affected the program’s operations?

F4c. Do you anticipate that these changes will impact savings, participation or other outcomes? How?

B.3 Participant Interview Guide

Introduction

To support the process and impact evaluation of the 2018 Xcel Energy and CenterPoint Energy energy efficiency products, the EMI Consulting evaluation team will conduct telephone interviews with up to 30 facility managers or building owners who have participated in the Multi-family Building Efficiency (MFBE) Program. This guide presents the questions to be covered in the in-depth interviews for participants.

This guide is designed to facilitate interviews with key decision makers within companies who have participated in Xcel Energy’s and CenterPoint Energy’s MFBE Program. The interviews will assess the impact of the product on customers’ decision to install equipment, identify barriers to participation, assess customer satisfaction, identify opportunities to improve the product, and document the product’s influence on customers’ decisions.

Research Questions or Objectives

- Assess the effectiveness of the Xcel Energy’s and CenterPoint Energy’s MFBE Program from the perspective of customers at multi-family properties.
- Determine motivators and barriers to program participation.

- Assess the extent to which participants are satisfied with program marketing materials and the explanations they receive about the program during initial interactions with program and implementer staff.
- Assess customer satisfaction with the program overall as well as specific program elements.
- Understand the customer journey – how customers interact with and experience the program – throughout their experience.

Interview Guide

Section A: Introduction / Screener 1.

Hello,

My name is [INTERVIEWER] calling from EMI Consulting on behalf of Xcel Energy and CenterPoint Energy, may I please speak to [INTERVIEWEE].

[AFTER INTERVIEWEE REACHED]

Hi [INTERVIEWEE], my firm, EMI Consulting, has been contracted to call Xcel Energy and CenterPoint Energy customers who have participated in the joint Multi-family Building Efficiency program to ask them some questions about their participation and ways the Utilities might improve their experience(s) in the program. To be clear, we are not selling anything, we are looking for feedback on the program. As a token of appreciation for taking time to speak with use, we are offering a \$50 gift card for your time today.

A1. Do you remember [participating in / Applying for] the Multi-family Building Efficiency Program in [YEAR]?

0 - No

1 - Yes

DK - Don't know

[IF 01 = No or DK]

A1a. Is there someone who might be more familiar with your participation in the Multi-family Building Efficiency Program?

0 - No

1 - Yes (**RECORD CONTACT:** _____)

A2. Do have any time to speak with me today, or in the future, regarding your experiences with the Multi-family Building Efficiency Program?

0 - No

1 - Yes

[IF NO TIME NOW, RESCHEDULE]

Date: _____

Time: _____

Introduction 2.

Thank you for agreeing to talk with me today. As I mentioned, my name is **[INTERVIEWER]** from EMI Consulting, we are an independent research company hired by Xcel Energy and CenterPoint Energy to evaluate their Multi-family Building Efficiency Program. I expect our conversation to take about 30 minutes today and we will supply you with a \$50 gift card for the interview. To make sure I don't miss anything, is it okay if I record this call? The recording will be used for my note-taking purposes only, your specific responses will not be tied to your name and any information you provide will not affect your standing with either utility or any other organizations.

Do you have any questions before I start?

Section B: Firmographics / Participant Characterization

To begin, I'd like to take 5-10 minutes to better understand **[BUSINESS NAME]** and your role **there**.

- B1.** What is your role at **[BUSINESS NAME]**?
- B2.** What is your role in terms of energy efficiency decisions / upgrades at **[BUSINESS NAME]**?
- B3.** Are there other individuals at **[BUSINESS NAME]** who have input on energy efficiency decisions / upgrades, or are you the sole decision maker? What are their roles?

[IF OTHERS WHO MAKE DECISIONS]

- B3a.** Is there a corporate approval process you must complete to pursue energy efficiency upgrades?

PROGRAM CLARIFICATION

- a) Did you receive an audit? (Y/N)

[IF YES} Did you receive a written report including the audit findings and recommended energy savings actions? (Y/N)

Were energy-savings measures directly installed at your building? (Y/N)

[Measures include: In unit LEDs; common area screw-in LEDs; LED exit signs; kitchen and bath faucet aerators; energy efficient showerheads; waterheater blankets]

- b) Did you receive a project consultation? (Y/N)
[Consultation:
 - Building owner/manager works with program implementer to select a specific set of improvements
 - Program implementer develops job specifications, establishes a timeline for installation of improvements, assesses bids received from contractors, and works with the owner to select a winning bid.]
- c) Did you apply for rebates for energy efficiency upgrades? (Y/N)

- d) Did you complete any projects (in addition to the direct install measures) or reach a savings achievement tier on your way to your end goal? (Y/N – Specify)

[To qualify for the incentive payment, projects must be completed and operational within two years of the audit]

Ok, thanks for that information. That's all really helpful. Now I would like to ask you a few questions about **[BUSINESS NAME]**.

B4. Does **[BUSINESS NAME]** own and/or operate multiple sites?

[IF YES] How many separate sites does **[BUSINESS NAME]** own and/or operate?

[INTERVIEWER NOTE]: Referring to properties / apartment complexes / sites, not buildings]

B5. How many buildings does **[BUSINESS NAME]** own and/or operate in total (across sites, if relevant)?

[IF B5 > 1 BUILDING] [IF DI = YES]

B6. Of these **[B5 RESPONSE]** buildings, how many received direct install measures/rebated equipment or services through the Xcel Energy/CenterPoint Energy Multi-family Building Efficiency Program?

[IF “NONE” but listed as participant]

B6a. According to our records, you participated in the Xcel Energy/CenterPoint Energy Multi-family Building Efficiency Program. Can you help us understand what might be going on? Have there been any changes recently that might explain the discrepancy in our records?

[FOLLOW UP AS NECESSARY]

B7. Approximately how many of the buildings that **[BUSINESS NAME]** operates are low-rise ____ and high-rise ____ buildings?

[INTERVIEWER NOTE: Low-rise buildings are less than 4 floors, high-rise buildings are 4 floors and above]

Section C: Awareness / Sources of Awareness

Thank you for all your answers thus far, now I'd like to ask you some questions about how you found out about the Xcel Energy/CenterPoint Energy Multi-family Building Efficiency Program.

C1. How did you first become aware of the program? Were there any other sources of awareness?

[ASK C2 AND C3 IF PARTICIPANT AND ANSWERS TO B6/B6a INDICATE AWARENESS OF PARTICIPATION]

C2. And how influential would you say the **[AWARENESS SOURCE]** was in terms of your decision to pursue the program?
[IF MULTIPLE SOURCES, ASK IF ANY DIFFERENCE]

C3. Did the **[AWARENESS SOURCE]** give you all the information you needed to make a decision about pursuing the program?

[IF NO]

C3a. Is there any/What kinds of additional information would have made making the decision easier for you?

Section D: Motivators and Barriers to Participation

Now I'd like to ask you a few questions regarding your decision to pursue the Xcel Energy/CenterPoint Energy Multi-family Building Efficiency Program.

D1. Generally speaking, what are the factors you consider when making energy efficiency upgrades [at business]?

[IF MULTIPLE]

D3a. Which of these do you consider to be the most important when considering energy efficiency upgrades?

[ASK D2 – D4 IF PARTICIPANT AND ANSWERS TO B6/B6a INDICATE AWARENESS OF PARTICIPATION]

D2. What was the primary reason your organization decided to pursue the program?

D2a. Were there other secondary reasons you decided to pursue the program?

D2b. Would your primary reason have been enough to make you pursue the program without the other secondary reasons?

D3. Was there anything about the program that made you hesitate to pursue it?

[IF YES]

D3a. Why did you ultimately decide to go forward, despite this / these concern(s)?

D3b. Is there anything Xcel Energy and CenterPoint Energy could do to reduce concerns like this [in the future]? ///in terms of future participation in the utilities' energy efficiency programs?

D4. Were there any organizational obstacles to [pursuing this program] that you had to overcome (e.g., budget or budget cycles, financing, staff resources, approval processes)?

[IF MULTIPLE]

D4a. Which of these was most difficult to overcome?

D4aa. How did you ultimately overcome this/these obstacle(s)?

Section E: Program Experience and Satisfaction

**[ASK SECTION E QUESTIONS IF PARTICIPANT AND ANSWERS TO B6/B6a
INDICATE AWARENESS OF PARTICIPATION]**

Thank you for those responses, that's all really helpful information. For the next series of questions, I'd like to ask you a little bit about your experience with the Multi-family Building Efficiency Program.

E1. In general, how would you rate your satisfaction with the program on a scale from 1 to 5, where 1 is Not at all Satisfied and 5 is Very Satisfied.

E1a. Can you tell me a little bit about why you were (4-5) / were not (1-3) satisfied?

E2. How about your satisfaction with the audit report? Please use the same 1 to 5 scale where 1 is Not at all Satisfied and 5 is Very Satisfied.

[Do you recall having a meeting where your audit report was read out?

[IF YES]

[Report_Mtg = 1]

E2a. And, using the same scale, your satisfaction with the Audit Report Readout Meeting?

Now I'd like to ask you a few more detailed questions about your satisfaction with specific elements of the program. Please tell me how satisfied you are with the following on the same 1 to 5 scale, where 1 is Not at all Satisfied and 5 is Very Satisfied.

[IF direct install = 1]

E3_D0. How satisfied are you with:

E3_DI_1. The Quality of the products installed in your building(s)

E3_DI_2. The coordination to install the products:

E3_DI_3. Your tenants overall response to the products that were installed:

E3_DI_4. Have you heard anything specific from tenants regarding the equipment that was installed?

[IF YES]

E3_DI_4a. What did you hear?

[Prompt as necessary: Was the feedback you received generally positive or negative? Were there any frequent comments?]

D3_CON. Did you receive any additional assistance from contractors?

[IF YES]

D3_CON_1. What kind of assistance did you receive from contractors?

D3_CON_2. How satisfied are you with the assistance you received from contractors?

[IF SAVINGS > 15%]

E3_Q. How satisfied are you with:

E3_Q_1. Project consultation for recommended installations.

E3_Q_2. The incentive amount and incentive processing.

[IF SAVINGS < 15%]

E3_NQ_1. How satisfied are you with:

E3_NQ_1. The information you received about prescriptive rebates?

[IF COMPLETED ANY PROJECTS (Program Clarification)]

E3_MEAS_1. You mentioned that you completed energy efficiency projects as a result of participating in the program.

E3_MEAS_2. What equipment did you choose to upgrade or install?

E3_MEAS_3. Why did you choose to complete these projects?

E4 Can you briefly summarize why you were satisfied or dissatisfied with [particular] parts of the program?

[ALL RESPONDENTS]

E4. If you could change one thing about the Multi-family Building Efficiency Program, what would it be?

E5. If there was one thing you could recommend to the Utilities *not* to change about the program, what would it be?

E6. On a scale from 0 to 10, where 0 is definitely would not recommend and 10 is definitely would recommend, to what extent would you recommend participating in the program to a colleague?

Section F: Closing

We are also looking to get feedback directly from tenants, and are wondering if you might be willing to share a web survey with your tenants. We would design an email for you to send out to tenants, and provide a link to the survey. Is that something you would be willing to share with your tenants?

[Note Y or N on tracker]

Those are all the questions I have for you, thanks again for taking the time to speak with us. Before we hang up, I'd like to offer you the opportunity to provide any additional feedback you have or ask any questions you have.

Finally, I'd just like to confirm the name and address we have on file to ensure that you receive your \$50 gift card. Can you confirm that we should send the gift card to:

Name: _____

Email Address: _____

Ok, thank you. We plan to have those checks in the mail by [DATE]. Thank you again.

[THANK AND TERMINATE]

B.4 Tenant Survey Guide

Introduction

To support the process and impact evaluation of the 2018 Xcel Energy and CenterPoint Energy energy efficiency products, the EMI Consulting evaluation team will conduct web or paper surveys with up to 120 tenants in buildings that have participated in the Multi-family Building Efficiency (MFBE) program. This guide presents the questions to be covered in the survey.

This guide is designed to facilitate interviews with participants in Xcel Energy and CenterPoint Energy's MFBE program. The purpose of the survey is to identify tenants' awareness of participation, satisfaction with equipment installed through the program, identify perceived challenges with the program, and elicit any suggestions for improving delivery of the program

Research Questions or Objectives

- Assess tenants' awareness of program participation.
- Assess tenants' satisfaction with the equipment installed through the program.
- Identify perceived challenges with participation.
- Elicit suggestions for program improvement.

Table B-1: Mapping of interview questions to indicators and contextual themes

Research Objective	Survey Question Numbers
Assess tenants' awareness of program participation.	B1, B2
Assess tenants' satisfaction with the equipment installed through the program.	C2, C3
Identify perceived challenges with participation.	D1
Elicit suggestions for program improvement.	E1

Fielding Instructions

The survey will be fielded on a Qualtrics online survey, sent via an anonymous link sent to building owners and managers from the participant interviews. A \$15 incentive will be provided to all survey respondents. Reminder emails and phone calls to building owners and managers will be sent on a weekly basis.

Survey Guide

Section A: Introduction

Your building recently participated in an energy efficiency rebate program offered by Xcel Energy or CenterPoint Energy. The program encourages the installation of more energy efficient equipment in multi-family buildings, such as: lightbulbs, faucet aerators, and showerheads in multi-family buildings.

In the following survey, we would like to ask you a few questions about your experience with the program. Please do not write your name anywhere on the survey in order keep your responses anonymous. We will not be sharing your individual responses with your building manager, property manager, landlord, Xcel Energy, nor CenterPoint Energy.

Section B: Awareness of Participation

- B1.** At any point, did your building manager, property manager, or landlord notify you that your building would be installing more energy efficient lightbulbs, faucet aerators, or showerheads?
- No
 - Yes
 - Don't know

- B2.** Next, we would like to ask you about any specific equipment you remember being installed in your residence since 2017.

For each equipment type listed below, please write Yes or No to indicate whether you remember this type of equipment being installed in *your* residence. Please also indicate the number of each you remember being installed in the column the right.

If you do not remember any equipment being installed, please write "No" in the boxes below and skip to Section F.

Equipment	Do You Remember Being Installed? (Yes or No)	Number Remember Being Installed
Energy efficient lightbulbs		
Energy efficient showerheads		
Energy efficient faucet aerators		

Section C: Satisfaction with Equipment

- C2.** Please indicate the extent to which you are dissatisfied or satisfied with the quality of each of the following equipment types that were installed in your residence by checking the corresponding box below.

If you do not remember one of the equipment types being installed, please leave that row blank.

Equipment	Very Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied nor Satisfied	Somewhat Satisfied	Very Satisfied	*Don't know
Energy efficient lightbulbs						
Energy efficient showerheads						
Energy efficient faucet aerators						

- C3.** Please provide a short description telling us why you were dissatisfied or satisfied with each of the following types of equipment installed in your residence.

If you do not remember one of the equipment types being installed, please leave that row blank.

C3a. Energy efficient lightbulbs installed: _____

C3b. Energy efficient showerheads installed: _____

C3c. Energy efficient faucet aerators installed: _____

Section D: Perceived Hassle-factor

- D1.** Please think back to when the energy efficient equipment was being installed in your residence and indicate your agreement with the following statements by checking the corresponding box below. If you were not present for the installation, please check the corresponding box below. If you cannot remember, please check the corresponding box below.

	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree	I was not present for the installation	Cannot Remember
The installation of the equipment was an inconvenience to me or my family.							
Overall, the installation of the equipment was worth it.							
If I had the choice, I would not have had the equipment installed.							

Section E: Suggestions for Improvement

- E1.** Given your experience with the installation of the energy efficient equipment in your residence, do you have any suggestions for making the installation easier or improve the process for other tenants?

Section F: Closing

Thanks again for taking the time to contribute your feedback. As a small token of appreciation for your time, we would like to send you a \$15 Tango gift card. This gift card can be used to buy products from a variety of online merchants.

If you would like us to send you a card, please provide your email address below. You do not need to provide your name. We will only use the email address once to send you the gift card. We will not share your email address with anyone or use it for any other purpose.

Email: _____

If you would like more information about what a Tango gift card is and where you can use it, you can visit: <https://www.tangocard.com/the-tango-card/>. Xcel Energy and CenterPoint Energy are not affiliated with Tango Card.

B.5 Peer Program Benchmarking Guide

Introduction

As part of an evaluation of the 2018 Multi-family Building Efficiency Program (MFBE) offered by Xcel Energy and CenterPoint Energy, the EMI Consulting evaluation team will benchmark the programs against peer utilities. The objective of the benchmarking is to identify opportunities to improve the programs based on a comparison of peer utility programs' design, delivery, and processes. In addition, benchmarking allows the evaluation team to understand the performance of the program in context with the performance of other

utilities. To conduct the benchmarking, the evaluation team will conduct secondary research on the peer utilities identified and perform in-depth interviews with program managers at the peer utilities.

This document presents the in-depth interview guide for peer utility Multi-Family programs. Table B.5-2 identifies the interview questions related to each key performance indicator. Table identifies the interview questions related to each contextual theme.

This interview is being conducted with a set of approximately 6 peer program providers. Target providers include: Pacific Gas and Electric, NYSEERDA, Energy Outreach Colorado, Elevate Energy, Puget Sound Energy, New York State Electric and Gas, and Ameren Illinois. Target respondents are managers of multi-family energy efficiency programs.

Table B.5-2: Mapping of interview questions to indicators

Key Performance Indicator	Data Needed	Interview Question
Savings calculations	<ul style="list-style-type: none"> Savings method- estimated, deemed, combination Measures with deemed vs. calculated savings 	A3c
Program energy savings goals	<ul style="list-style-type: none"> 2017 program energy savings goals (kWh) 2017 program savings (kWh) 2017 total energy efficiency portfolio goal (kWh) 	B2, B4, B5
Program budget cost of acquisition (e.g., \$/kWh)	<ul style="list-style-type: none"> 2017 program budget 2017 total gross energy savings for each peer program 	B4, B6
Total resource cost test (TRC) values	<ul style="list-style-type: none"> TRC values 	B7

Table B.5-2: Mapping of interview questions to contextual themes

Contextual themes	Data Needed	Interview Question
	<ul style="list-style-type: none"> Circumstances that impact program plans (regulation, retail channels, demographics) 	
Program description	<ul style="list-style-type: none"> Overall program objectives, implementation strategies, customer types targeted for participation Program staffing, the length of time of program operation, any recent changes that have been made to the program, and future outlook. 	A1, A2, A4, C1
Measure types and incentives	<ul style="list-style-type: none"> List of measures and their efficiency levels, incentive levels, and (if available) incremental costs 	A3
Customer participation levels	<ul style="list-style-type: none"> Number of incentive applications submitted in 2017 	B1
Customer engagement practices	<ul style="list-style-type: none"> Methods used to engage customers 	C1
Trade partner engagement practices	<ul style="list-style-type: none"> Methods to engage trade partners, including contractors and distributors 	C2
Customer Decision-Making and Barriers	<ul style="list-style-type: none"> Motivations/barriers behind participation Tools trade partners find most helpful in motivating customers to participate 	C1, C2
Program Experience/Satisfaction	<ul style="list-style-type: none"> Customers' and trade partners' experience with and satisfaction with the program Where opportunities may exist to facilitate greater participation 	C1, C2

Recruiting Instructions

The research team plans to send advance emails to any program managers with available emails. The email will contain an explanation of the research, as well as an Xcel Energy, CenterPoint Energy, and EMI Consulting contact person the utility can reach out to if they have additional questions or would like to schedule an interview at their convenience.

Potential respondents will be recruited by consultants on the research team who will be conducting interviews and have been trained on the purpose and goals of the Minnesota Multi-Family program qualitative research. The research team will be as flexible as possible in scheduling these interviews, including scheduling early morning or evening interviews, when possible, to accommodate busy utility schedules. The research team will leave a voicemail or receptionist message on the first attempt whenever possible, and then use discretion to

determine any additional messages left on subsequent attempts. The research team will strive to attempt to contact each peer utility a minimum of 4 times before giving up on that particular contact, but depending on each unique situation, the research team may need to attempt some contacts more times to ultimately reach the correct person.

Interview

Introduction/Recruitment

Major questions: how similar to MN? What kinds of incentive structures?

Eligibility: % Threshold for savings? Cost-effectiveness threshold for projects?

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

INTRO 2 We are working with Xcel Energy and CenterPoint Energy on a benchmarking and best practices study for multi-family programs. As part of this study, we are reaching out to leaders of multi-family programs to learn about innovative programs and best practices in the field.

We would like to include UTILITY in this study, as your program has been identified as an [innovative/peer] program. We would like to spend some time [add estimated time once final/tested] talking with you about your program's design and implementation, as well as your successes and challenges with the program.

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

INTRO 3 Can we include your utility in the study?

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

Section A: KPIs/Program Design

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

Can you describe your program at a high level?

- a. How long has the program been operating?
- b. What are the program's overall objectives?
- c. Is your program run by utility staff or a third-party implementer?

- d. How many PROGRAM STAFF OR IMPLEMENTER STAFF members support the program?
 - e. What is the fuel type does the program focus on, gas, electric, or both?
- A2. Can you describe the implementation strategies used by STAFF OR IMPLEMENTER?
 - a. What are the steps a customer would go through to participate in your program? **[PROBE: trade partner involvement, length of application, inspection requirement]**
- A3. Next, I'd like to talk about your program's efficiency incentives. **[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH ON PROGRAM]**
 - a. What types of measures do you offer? **[PROBE: Prescriptive, Custom, Performance]**
 - b. What specific measures are offered? **[PROBE: lighting, HVAC]**
 - a. Do your measures focus on common area upgrades, in-unit upgrades, or both?
 - c. Are the measure savings estimated, deemed or some combination?
 - a. What measures have deemed vs. calculated savings?
 - d. What are the incentive levels for each measure? **(NOTE: Ask if there is a sheet they can send over email rather than reading each over phone)**
 - e. What are the incremental costs for each measure? **(NOTE: Ask if there is a sheet they can send over email rather than reading each over phone)**
 - f. What measures are the most popular / most frequently utilized by customers? What measure(s) make(s) up the highest percentage of your program's energy savings?
- A4. Have there been any recent changes to the program in how it is implemented or the measures that are included?
 - a. Are you considering adding any new measures or making other changes?

Section B: Savings goals/cost

Next, I'd like to talk about the participation and energy savings achieved through the program in 2017. **[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH ON PROGRAM]**

- B1. How many projects were completed in 2017?
 - a. (IF PROGRAM HAS AUDIT COMPONENT) How many audits were completed in 2017?

- b. (IF PROGRAM HAS STUDY COMPONENT) How many studies were completed in 2017?
 - c. How many incentive applications were submitted in 2017?
- B2. What were the program's energy savings goals (kWh and/or dth) in 2017?
- B3. Are these goals based on gross or net savings?
- B5. What was the total energy efficiency portfolio goal in 2017 (kWh and/or dth)?
- B6. We'd like to know more about the budget or total operating costs of your program to get a sense of the utility cost of energy savings. Ideally, this includes program incentives, salaries of program staff (including support staff who may not work on the project full-time), marketing, consulting, and other overhead.
 - a. What is the program's total operating budget?
 - b. If sub-programs exist, how does this break down between sub-programs?
- B7. What type of cost effectiveness test is applied to the program?
 - a. If TRC, what was the TRC in 2017?

Section C: Program Participation

Next, I'd like to talk about program outreach and marketing. **[ASK/CONFIRM BASED ON HOLES IN BACKGROUND RESEARCH ON PROGRAM]**

- C1. What steps does the utility take to engage potential program participants?
 - a. What has been the most effective?
 - b. Do you target certain customer types? **[PROBE: Low-income]**
 - a. How do you engage this customer type?
 - b. Do you face any challenges reaching your target customer type?
 - c. What motivates customers to participate?
 - d. What are customer experiences with the program? What do customers like about it? Where do you see opportunities for greater participation from customers?
- C3. Does the program have any program participation criteria or qualifications the buildings/properties must meet to participate?
- C4. Has the program encountered any barriers or challenges, and if so, have any possible solutions been found?

- C2. Next, I'd like to talk about the program's trade allies.
- a. Does the program engage trade allies? What types of companies typically serve as the primary trade ally contact? (Contractors, distributors)
 - b. What roles do trade allies play in driving participation in the program?
 - c. What are trade ally experiences with the program? What do they like about it? Where do you see opportunities for greater participation from trade allies?

Section D: Closing

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

APPENDIX C: STAFF INTERVIEW FINDINGS

As part of EMI Consulting's ongoing evaluation of Xcel Energy and CenterPoint Energy's Multi-family Building Efficiency (MFBE), the EMI Consulting evaluation team conducted telephone interviews with key staff managing and implementing the program. We conducted these interviews to obtain feedback on overall program performance, collect staff feedback on implementation successes and challenges, and identify themes and issues for possible revisions to the evaluation plan. Since the MFBE program is jointly-administered through Xcel Energy and CenterPoint Energy, the evaluation team conducted interviews with key staff at both utilities as well the implementation contractor, Energy Insight. The EMI Consulting team interviewed:

- Program Managers
- Program Implementers
- Engineers
- Marketing Assistants

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

Key Takeaways

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

- The program has been in operation since 2015. While in previous years both utilities have met their savings goals for the programs, in 2017 CenterPoint Energy did not meet its savings goal. The participation goals have presented more of a challenge, as it has proved difficult to reach smaller property managers. Despite this, the program has remained an important contributor to Xcel Energy's and CenterPoint Energy's portfolios.
- The core components of the MFBE program include a building audit, direct install measures that engage building owners and easily achieves savings, and a tiered incentive component to encourage further improvements to the building.
- The incentives offered through this program are based on a percentage of the cost of the energy savings improvements. This is intended to make it easy for building owners and property managers to understand the incentive available relative to their share of the cost.
- The program is designed to introduce building owners and property managers to energy efficiency, as well as to provide clarity around what sort of energy efficiency measures they can implement.
- Program goals include energy efficiency education, external stakeholder satisfaction, participation goals, as well as savings goals.
- Program staff identified high customer satisfaction, the program's educational components, the free direct install and free building audit, the ability to custom-bundle different measures for different participants, and a single-program implementer as key strengths of the program.

- Program staff identified the 15% savings threshold, combined with the cost-effectiveness target for approved rebate measures, the program's complexity, a long application and rebate approval process, and pressure from external stakeholders to reach more multi-family units as the key challenges of the program.

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 MFBE Program is a unique, incentive-based offering for multi-family properties in Minnesota with electric services from Xcel Energy and gas services from CenterPoint Energy or Xcel Energy.
- The program is designed to engage building owners by helping them understand their energy use, achieve immediate energy savings through low-cost improvements, and move beyond the initial direct install measures to custom-bundled, incentivized projects to achieve deep energy savings.
- The program structure combines a free building audit and direct install phase that engages building owners and easily achieves savings, and a tiered incentive component to encourage further improvements to the building.
- The program is marketed to building owners and managers and is available to market rate and affordable housing properties.
- Eligible properties must have a) Xcel Energy as their electric service provider and b) either CenterPoint Energy or Xcel Energy as their natural gas provider. Buildings must also have a common entrance, common spaces, and in-unit kitchens to qualify.
- The incentives offered through this program are based on a percentage of the costs associated with the energy savings improvements. This is intended to make it easy for owners to understand the incentive available relative to their share of the cost.
- The program seeks to motivate property owners to achieve deep energy savings by offering larger incentives for higher levels of savings, regardless of how savings are achieved. These incentives are the same regardless of fuel (electric or natural gas) or location of energy savings (residential or common space).

Goals

- Beyond energy savings, one goal of this program is to provide education about energy efficiency, new initiatives, and technologies. The program also provides information about how CenterPoint Energy and Xcel Energy can be a resource for making energy efficiency decisions. By providing education, the program serves as a gateway to assisting customers with the adoption of energy efficiency measures. Additionally, the program helps customers include long-term energy efficiency upgrade planning into their decision-making processes through the provision of free building audits.
- Program staff identified external stakeholder satisfaction as another program goal. External stakeholders played a key part in the program's inception and ongoing activities. Program staff expressed a desire to demonstrate the program's value to stakeholders by meeting participation and savings goals. Program staff perceive that achieving program goals quickly while simultaneously simplifying program processes are key drivers of external stakeholder satisfaction.

- The program has a participation goal that it needs to meet every year. This participation goal is measured in terms of the number of buildings served, including site visits, direct install and number of properties that moved into a completed project role.
- This program also has a savings goal that it needs to meet every year. This savings goal is measured in terms of kWh, kW, and Dekatherm consumption reduction.

Product Strengths and Challenges

Staff identified the following strengths and barriers to implementing this program in 2017. Strengths include factors that program staff identified as supporting the success of the program; barriers include factors that program staff identified as preventing the program from reaching its goals or operating most effectively.

Strengths

- While the program supports participants in making decisions about contractors, manufacturers, and vendors, the program does not partner with trade allies, endorse specific manufacturers, or endorse specific vendors. This means that program staff can provide unbiased recommendations for each customer, and can focus on recommending the optimal set of measures rather than specific vendors or contractors. This allows the implementer and the utilities to step away from a decision-making role, and help build trust with each program participant by being seen as providers of objective information.
- The program has an educational component, and the program as a whole is intended to serve as a “gateway” for energy efficient behaviors by helping participants increase their awareness and understanding of energy efficiency and energy efficiency products. Ideally, each participant should know more about the energy efficiency opportunities in their building(s) after participating, regardless of whether they participate in all stages of the program. In addition to interactions with utility and implementer staff, the program’s marketing materials are intended to serve as touchpoints for prospective participants. These materials are intended to help customers understand the program’s goals and its benefits to them.
- Staff also see the free building audit and direct install components as strengths of the program. These program components offer property managers a way to achieve energy savings without taking up too much of their time or financial resources. Direct install measures are also some of the most cost-effective measures, and are beneficial for both residents and building owners.
- The program allows participants to custom-bundle measures to achieve the 15% savings threshold while remaining cost-effective. This gives the participants the flexibility to offset measures that are less cost-effective with other measures in a bundle.
- There is only one program implementer between both utilities. Once a program participant’s application has been approved, the participant communicates primarily with the implementer, and communication between utility representatives and the participant is typically relatively minimal throughout the course of the program. This gives the participant one point of contact to whom they can reach out with questions or concerns, and is believed to make it easier and simpler for the customer to stay engaged throughout the course of their participation.
- According to staff, the program has consistently received positive feedback from participants. Participants are reportedly especially satisfied with the ease of the direct install component of the program and with the energy savings that have occurred because of their participation. This positive feedback from property managers has led them to refer other property managers into the program, which has increased overall program participation.

- Dedicated engineers from each utility review implementer documentation and provide support as needed. The dedicated engineers are knowledgeable about the program, typically know the customer's needs, and can support program implementers with information as issues arise.

Challenges

- Staff members highlighted the combination of the program's cost-effectiveness requirements and its 15% energy savings target as a significant barrier to achieving program participation and savings goals. The way the program is currently structured participants can experience a degree of uncertainty at the beginning of their participation about whether their bundle of measures will qualify for an incentive. Occasionally, a participant will put together a bundle of measures that is estimated to be cost effective, but once they go through the process of soliciting bids from contractors and developing a work plan their project can be denied for an incentive because the contractor estimates do not meet the cost-effectiveness threshold. Conversely, a boiler is almost always required to reach 15% energy savings, but is almost never cost-effective under current cost-effectiveness calculation methodology. Once a participant finds out their project is not eligible, they often lose interest in the program and drop out.
- The program is complex and could feel "black-boxy" to participants. Staff report that they believe the program implementer does a great job communicating with participants, but participants may not understand the nuances of how cost-effectiveness is calculated, and why these calculations influence whether they qualify for program rebates. Additionally, some program staff indicated that they felt the program application is not very clear, leading to delays when applicants fill out the forms incorrectly and must revise.
- Some program staff speculated that the program processes may seem slow to participants. The program requires significant time for engineers from the utilities to review the implementers' calculations during both the report development phase and the rebate phase of the program, and program managers review each audit report before it is sent to customers. Program staff believe that this review time could cause participants to lose interest in the program. Some engineering staff felt that the engineering review time may be overly lengthy, as the implementer now has a lot of experience with the program and the utility engineers' review rarely comes to different conclusions than the implementers.

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.

- Assess the extent to which participants are satisfied with program marketing materials and the explanations they receive about the program during initial interactions with program and implementer staff.
- Determine the factors that prevent customers from participating in the incentive portion of the program both from a program design perspective (e.g., where the customer wants to participate but does not get a chance to due to not meeting the 15% cost-effectiveness threshold) and from a customer disengagement perspective (e.g. where they are able to meet the threshold but do not make additional effort to move forward with projects).
- Understand the customer journey – how customers interact with and experience the program – throughout their experience.

APPENDIX D: STAKEHOLDER INTERVIEW FINDINGS

Introduction

As part of EMI Consulting's evaluation of the Multi-family Building Efficiency (MFBE) Program offered by Xcel Energy and CenterPoint Energy, the EMI Consulting evaluation team conducted telephone interviews with key program stakeholders. The EMI Consulting team interviewed key people from the following stakeholder organizations:

- Minneapolis Clean Energy Partnership (CEP) Energy Vision Advisory Committee (EVAC)
- City of Minneapolis
- City of St Paul
- Minnesota Multi-family Affordable Housing Energy Network (MMAHEN)
- Minnesota Housing Finance Authority (MHFA)
- Minnesota State's Department of Commerce Division of Energy Resources

This memo contains our summary of the key takeaways, stakeholders' perceptions of the program, an inventory of the program's strengths and barriers, and feedback on evaluation priorities. The stakeholder responses presented here are offered without the program staff's or evaluation team's assessment of their feasibility or appropriateness, with few exceptions. As such, recommendations and themes selected by evaluators in this document do not necessarily reflect recommendations endorsed by the evaluation team.

Key Takeaways

Below are the evaluation team's key takeaways from the stakeholder interviews:

- Overall, stakeholders expressed pride about their involvement with the MFBE program, and expressed confidence in CenterPoint Energy and Xcel Energy to administer the program and continue to implement improvements. Many stakeholders see the program as a potential model for utilities around the country.
- Some stakeholders expressed a desire for increased access to program data, access to increased granularity in the program data being reported, possibly through an online portal.
- Upfront cost barriers continue to be an issue for owners. The program could provide financing options or provide additional financing education to address this barrier.
- Several stakeholders reported that they perceived a need for additional education for landlords and tenants. As the audits can include technical language, stakeholders suggested increased education for landlords to be able to interpret the audit findings. Additionally, stakeholders suggested additional education for tenants describing the program and its benefits for them.
- Stakeholders consistently brought up the 15% savings requirement as a barrier to participation. However, there were few suggestions for addressing this barrier aside from reducing the savings requirement.

- Some stakeholders reported that they felt that the two-year project timeline and three buildings per year limitation were too restrictive and may limit participation.

Description of Stakeholders

EMI Consulting interviewed representatives of several stakeholder organizations. In some cases, EMI Consulting interviewed more than one person from a single organization. The following table summarizes the stakeholder organizations from which interviewees were drawn.

Organization	Description
Minneapolis Clean Energy Partnership (CEP) Energy Vision Advisory Committee (EVAC)	Organization working to help Minneapolis reach climate action targets through energy efficiency and renewable energy initiatives
Minnesota Department of Commerce, Division of Energy Resources	Division of the Minnesota Department of Commerce responsible for overseeing utility Conservation Improvement Programs, advocating for utility customers, and assisting low-income residents with heating and weatherization
City of Minneapolis	Has a pilot program focused on multi-family building efficiency that encourages naturally occurring affordable housing (NOAH) by offering tax benefits for maintaining affordable housing through energy efficiency upgrades and other building improvements.
City of St. Paul	Buildings are required to go through the MFBE program to receive city financing
Minnesota Housing Finance Authority (MHFA)	Minnesota state agency that provides funding for various homeowner groups
Minnesota Multi-family Affordable Housing Energy Network (MMAHEN)	Network of individuals interested in low-income and affordable housing in the Multi-family sector.

Product Understanding and Desired Outcomes

The stakeholders provided the following responses when asked how the program might be improved to better achieve its goals:

- Offer a concierge-type service to building owners, as they often do not have time to participate and need assistance at each step along the way. This could help them with making the commitment to participate and install Tier 1+ level measures.
- Offer financing to building owners who cannot come up with their own financing for measures beyond direct install. Programs like PACE could be helpful in increasing program participation. Utilities could possibly finance projects with on-bill financing.
- Rank measures identified in the audit by which might be the best investment for an owner.
- Provide a visualization tool that shows how building owners' buildings compare with other multi-family facilities. One possible example of such a tool mentioned by stakeholders are the "Home

Energy Reports” of the residential programs, which show how your home compares to other similar homes.

The stakeholders indicated that they understood the requirements for program participation and that these were reasonable, although they offered several recommendations discussed in the “Challenges” section of this document.

Stakeholders were also asked if they perceived any major changes in the multi-family market since 2015 including anticipated changes in the next few years. A few changes mentioned included:

- Rapidly rising rents in the program service area may help drive more demand for energy efficiency as building owners seek to pass along savings to tenants to make their rent prices more attractive.
- Cities are looking at benchmarking energy efficiency in large multi-family buildings, including at a national level with HUD. Stakeholders were interested in developing a strategy for how the MFBE program will work to improve the scores of participating buildings.
- Renewable energy becoming much more affordable could impact the program as it will be cheaper for the utility to install wind capacity and owners will be able to install more solar. It could impact the cost-effectiveness of MFBE and how much is installed through the program; however, in the evaluation team’s view, this seems unlikely to change program aside from possibly altering any communication about renewable energy provided by the program.
- The possible adoption of stretch codes by various cities within MN could impact MFBE. Currently, the state rules do not allow a municipality to have a code stricter than state codes, and this could change with stretch code. However, this change would most likely only impact major renovations and new construction, so this would not directly impact MFBE in the evaluation team’s view.

Stakeholders were asked about the key outcomes they would like to see from the program, and they provided the following responses:

- **Increase Participation** – They would like as many buildings as possible to be able to participate and take advantage of the program. It is also important that the program be available to all income levels. Several stakeholders mentioned that they would like to see a focus on buildings where people are experiencing a higher energy burden, as there is an added benefit of helping lower income people. The cities are willing to help with targeted outreach to affordable housing campaign. Stakeholders also mentioned that they would like to see a significant increase in projects implemented from audit recommendations. Currently, stakeholders perceive that this hovers around 10%, but they would like to see it increase to 25% within the next year.
- **Market Non-Energy Benefits** – Include descriptions of additional non-energy benefits (NEBs) in program marketing, and consider providing this marketing at the same time as the direct install.
- **Target Low-income Buildings and Buildings with Mostly Minority Residents** - Address energy cost equity for low-income and minority residents, as minorities and lower income communities pay a higher portion of their income to energy costs.

NEBs are of a particular interest for a comprehensive program such as the MFBE. Stakeholders shared their views on important non-energy benefits as well as who should be responsible for these benefits.

- Several stakeholders mentioned that they would like to see an increased focus on reducing greenhouse gas emissions. This could help the program to serve as a model for other programs, as many cities have goals of being carbon neutral within the next 20 to 40 years. A possible future version of the program could help cities with those goals through partnership between Xcel Energy, CenterPoint Energy, and allies such as cities, Fresh Energy, MAMAHEN, and USGBC.
- Stakeholders also suggested that the program should consider how to contribute to reducing other health-related issues in multi-family housing (particularly low-income housing). Replacing lead-based paint, addressing mold, or remediating other air quality issues for example. Addressing these at the same time as energy efficiency can provide benefits even if building owners do not get much energy savings benefits from the program. This could also be facilitated through coordinating with other government agencies (especially city and county governments, as they have funding for these issues).

Several stakeholders also provided their views on performance indicators and additional data that could help measure the success for the program, including:

- Number of participants overall and by city
- Number of participants that install measures recommended in the audit (with a goal of 25% conversion rate)
- Number and percentage of buildings/units that are affordable
- Predicted GHG emissions reduced
- Case studies involving success stories from owners and renters who are collaborating to create energy savings within the program

Evaluation Plan Feedback

All the stakeholders had read summaries or outlines of the evaluation plan. In general, they were supportive of the approach described. The following bullets present the evaluation team's understanding of any concerns the stakeholders had:

- Some stakeholders wondered whether quality inspection of direct installs were included as part of this evaluation
- Make sure there is a good mix of affordable housing owners in the evaluation; affordable housing is important for the success of MFBE.
- Talking with owners at various stages of the program process is important (e.g., talk to those that have done audit, but haven't decided yet which measures to implement).
- Some stakeholders wondered whether the program includes proper disposal of old equipment when removed from the tenant space.
- Consider non-energy benefits in the evaluation plan. Include items from the climate action and affordable housing perspective. Examples include extending the useful life of housing with all the stresses going on in affordable MF community.
- Consider where owners drop out of program process with metrics such as "time from start to stop" and ask what caused them to drop out of the program at that stage (examine the roadblocks and lag time involved). Explore with owners whether the program will benefit from more active program management—hand-holding and technical assistance. Stakeholders want to know whether participants are getting support needed to understand audit results and what is happening next.

- Stakeholders wanted to know whether the questions for tenants would be open-ended. Paper or online surveys should work with tenants, according to one stakeholder.
- Questions and issues to explore with tenants include the following suggestions:
 - Checking on whether the program has a negative impact on comfort.
 - Exploring the perception by tenants in low-income housing that they will receive improvements and then the owners will charge a higher rate to tenants or won't renew the lease so they can charge a higher rate.
 - Whether there are eviction clauses in the lease that could impact tenant participation.
 - How the program benefited tenants financially.
 - How is outreach conducted and how best engage with this group.
 - What communication method makes most sense for them (e.g., Internet, phone, door to door) as far as getting a representative group for the evaluation. Talk to EVAC members to learn what might be best to engage the tenants in this evaluation—smartphone might be best so if online make sure legible on phone.

Strengths and Challenges

Stakeholders identified the following strengths and challenges to implementing this program in 2017. Strengths include factors that stakeholders identified as supporting the success of the program; barriers include factors that stakeholders identified as preventing the program from reaching its goals or operating most effectively.

Strengths

- Xcel Energy and CenterPoint Energy typically run all their programs effectively according to one stakeholder, so they imagine this program is being run that way as well.
- The MFBE program is the most comprehensive multi-family program in MN so this is a big win for the state.
- Three stakeholders mentioned direct install as a big strength, because it allows building owners and building managers to start the process and think more about what they can do while receiving free measures, potentially increasing participation in the program.
- For some cities, it is the only program out there for multi-family housing.
- The program is effective in getting building owners to get an audit visit.
- The one-stop shop approach that includes an audit, direct install, and implementing the recommended measures helps owners navigate and move through the program.
- Two utilities collaborating on the program is a strength as it allows the program to capture the benefits from both fuel sources. Additional collaboration with city departments helps with low-income participation as well.
- The marketing approach includes marketing through the MN MFHA, which provides a helpful opportunity to engage a captive audience.
- Four stakeholders specifically mentioned that the doubling of incentives for affordable housing is a great benefit, and they believed it helps increase participation. Many stakeholders expressed that it is a priority for them to reach and engage the low-income and affordable housing community and the program helps with that effort.

- A recent change of adding a year to the timeline for completing projects is important for allowing more projects to go forward. [Note: The MFBE program allows participants two years from the time of receiving the audit report to complete a project].

Challenges

- Several stakeholders mentioned the limitation to the number of buildings an owner can include within the program as a challenge for maximizing participation. [Note: to date the MFBE program has not turned away a participant for exceeding the building limitations]
- Several stakeholders perceived a need to Increase the percentage of low-income buildings that participate.
- It is a challenge for owners to hit the various thresholds for savings. Several stakeholders mentioned that the 15% level is very difficult to hit and one stakeholder referenced that other multi-family programs used 12 to 13 percent savings requirements. They also mentioned that MI utilities are using 10 percent. Note: The evaluation team examined savings thresholds as part of the utility benchmarking analysis.
- Related to the above point, moving participants to the higher tiers is a big challenge. It is a challenge to ensure that the incentives are set to a level that motivates customers to implement higher-efficiency measures.
- The two-year timeline from audit to when work needs to be completed is a challenge, as the efficiency upgrades could be part of a larger scope of work relying on outside financing packages with which there could be only one chance per year to apply for loans.
- To meet the required energy thresholds, the owners must complete all the recommendations. Contractors may not always be able to complete a recommendation, or may not be able to complete it as recommended, or may feel that some of the measures are unnecessary. It may be necessary to incorporate more flexibility in how to combine various measures and hit goals.
- Some stakeholders reported that it is a challenge for stakeholders to identify challenges as the reliance on self-reporting from utilities makes some stakeholders feel as though they do not always have access to all the underlying information. Participation performance is one example used by the stakeholders – stakeholders can ask questions, and can see the numbers on participation, savings, etc. and can see whether these metrics are over or under goals, but some stakeholders feel that it is difficult to interpret all the information through the utilities.
- A big challenge is that few audits are being converted into actual energy savings projects (beyond the DI savings). One issue related to this is the split incentive problem – landlords are still hesitant to commit resources to a project without seeing any of the savings themselves. Multi-family is a difficult sector to reach.

Stakeholders were asked if they had received direct feedback from any groups in the multi-family market. Most either do not directly work with end-use customers or they had not talked in-depth with anyone yet about the program. However, the two of stakeholders that had done so provided the following feedback:

- One stakeholder mentioned that owners were coming back and saying the energy audit was great and quick, but that the language used by the implementers was very technical and hard for owners to interpret. Sometimes the reports are too technical for the owners to understand. The program

might consider spending additional time with owners that are not as technically savvy to understand where they get confused.

- There is some confusion among customers trying to navigate all the rebate program opportunities. For example, if the owner is doing a major renovation they are not sure which program is right for them. This is especially true for MF owners who try to participate in MFBE and do not meet 15% threshold. They are unsure what to do next.
- Some stakeholders suggested that the program be expanded to other service areas (Duluth, for example).
- One stakeholder suggested that owners would undertake more projects or get deeper savings if additional measures were incentivized. Window replacements were mentioned as one potential measure that owners would take advantage of (for aesthetic reasons in addition to energy savings). Additionally, water costs are substantial, so anything that can save on water is of interest to owners.
- Owners asking whether they could get more than 3 buildings in the program came up several times. If the program has the capacity, one stakeholder reports that there are owners who would include additional buildings within their program participation.

Stakeholder opinions related to the barriers to successful implementation of both audits and installing additional measures was another topic of interest. Some themes related to barriers at the initial stage of the project (audit and direct install) included:

- One barrier noted by stakeholders was a lack of understanding both from renters and landlords about who was required to give approval for the audit and for direct installs. For instance, some landlords wondered whether tenants could request an audit of the building, or whether landlord permission was needed to conduct in-unit improvements.
- Additional possible barriers suggested by stakeholders include lack of program awareness among building owners, competing priorities for building owners and tenants, and inconvenience for both owners and tenants. Some stakeholders also expressed concerns about potential free-ridership, with building owners engaging in the program when they are already making planned improvements or are replacing broken equipment.

Stakeholders were also asked to specify what they feel are the biggest barriers of moving the customers from an audit to actual implementation of larger energy efficiency projects. Response themes included:

- Stakeholders again mentioned that the 15% threshold cut off is a big barrier. Some projects might be a good fit for the building but do not meet program requirements; or the project that meets the program requirement may not be feasible for the owner.
- Some stakeholders wondered about the possibility of a Tier 0 describing projects that do not meet the requirements for MFBE, but which you can get a rebate for through the prescriptive program or another program. This information could include savings and rebate estimates.

Stakeholders were also asked about specific opportunities for improvement in the design or implementation of the program. Suggestions included:

- Look for ways to reduce barriers to participation with financing and other methods for reducing the upfront costs of investing in energy efficiency. Owners are often unable to meet the upfront cost demands.

- Provide tenants with education about the program and its potential benefits for them, and how they can initiate an audit. Educational materials could be published in English, Spanish, and Somali.
- Provide stakeholders with information about the program on-demand – possibly through a portal where you can see things like the status of projects, where those projects are taking place, etc.

APPENDIX E: PARTICIPANT INTERVIEW RESULTS

Introduction

As part of EMI Consulting's ongoing evaluation of Xcel Energy's 2018 efficiency programs, the EMI Consulting evaluation team conducted 25 telephone interviews with participants in the Xcel Energy and CenterPoint Energy Multi-family Building Efficiency (MFBE) Program. We conducted these interviews to obtain feedback on overall program performance, collect participant feedback on motivations and barriers to participation, and identify themes integral to participants' understanding of the program. The EMI Consulting team interviewed:

- Facility and Maintenance Managers
- Property Managers
- Property Owners
- Board Members
- Project Managers
- Housing Managers

The evaluation team segmented interviewees by the extent to which they participated in the program. Near participants are defined as those who expressed interest in the program through an inquiry and/or application; DI and audit participants are those who, at a minimum, received an audit, but did not continue their projects to reach the 15% savings threshold; tiered incentive participants achieved at least the Level I, 15% savings tier. Of 25 interviews, n=2 were tiered incentive participants, n=6 were near participants, and n= 17 were DI and audit participants.

This memo contains our summary of the key takeaways, a segmentation of unique customer types, and a detailed overview of customer interactions with the program at various stages.

Key Takeaways

Below are key takeaways from participant experiences with the Xcel Energy and CenterPoint Energy MFBE program. These key takeaways provide a summary of the program from participant perspectives as expressed during MFBE participant interviews.

- Customers who do not fit the qualifications (minimum 15% energy savings) for tiered incentives often still consider themselves to be program participants.
- Overall program satisfaction is very high among all groups: near-participant (applied, but did not receive audit or direct install), DI and audit participant (received audit and/or direct install, but did not reach minimum savings tier for tiered incentive), and tiered incentive participant (reached at least 15% savings tier and an incentive for a whole building project).

- Respondents reported pursuing the program in order to take advantage of the energy audit and direct install. For many, reaching a savings tier was a ‘bonus’ that did not play a significant role in their decision to pursue the audit.
- Satisfaction with implementer staff is generally very high; participants reported open lines of communication and appreciated the educational aspects provided through the audit, audit report, and report readout meeting.
- Some customers with newer buildings and/or who regularly make energy efficiency upgrades knew the 15% savings target was out of reach at the time of application. The information the audit provided about possible upgrades was sufficient motivation to apply for the program anyway.

Key Findings by Customer Group

The evaluation team noted several key findings by customer group. These groups were

Low-Income Participants

A significant portion (n=8) of program participants offer low-income housing. One of the two tiered incentive participants interviewed manages a low-income housing property.

- While a significant portion of interviewees have certified low-income buildings, the program is also reaching participants who serve low-income individuals but do not have the certification. N=1 low income participant reported applying for low-income certification in order to facilitate participation in MFBE program. N=1 market rate participant reported having low-income tenants but had not yet applied for low-income certification.
- Motivations and barriers for these participants to enroll were similar to motivations for those offering market-rate housing.

“Specialized” Housing Participants

Participant interviews revealed that a significant portion (n=5) of program participants manage buildings for specialized groups. These include: individuals on probation, seniors, students, formerly homeless individuals, and individuals with mental and/or physical disabilities. While some (n=2) of these buildings are also certified low-income, 3 offer market-rate housing to individuals with needs that may differ from the general population.

- Specialized buildings reported similar tenant profiles to low-income buildings, but may not be certified as such due to other certification types taking precedence.
- While specialized housing buildings are not low-income, residents’ access to resources may be similarly limited.
- Some interviewees indicated specific needs (i.e. concern for elderly resident safety with motion-sensing lighting) that affect the kinds of energy efficiency projects they consider.

Owner and/or Condo Associations

The MFBE program targets multi-family buildings, the majority of which are owned and operated by individuals and organizations which lease units to individuals. Some participants (n=5), however, are associated with buildings in which occupants own their units. These individuals face different challenges to participation in the MFBE program.

- Approval processes tend to be more complicated, and in-unit upgrades are more challenging due to owners’ rights to autonomy and privacy in homes they own.

- Some interviewees indicated they felt communication challenges were due to the Utilities being unprepared to work with multi-family buildings where individuals own instead of lease units.

Customer Journey and Program Perceptions

Despite relatively low rates of tiered incentive participation in the MFBE program, interviewees generally expressed extremely high rates of satisfaction with the program. In addition, the evaluation team noted a tendency for DI and audit participants (those who received an audit but did not reach the 15% minimum savings tier) to self-identify as participants in the program. This suggests that motivations to participate as well as determinants of satisfaction from participants' perspective may differ from assumptions previously held by program staff. The following explores the customer journey in three chronological phases in order to understand participant motivations, barriers to participation, and criteria for satisfaction with the MFBE program.

Initial Contact to Audit

This phase applies to all participant groups (near, DI and audit, and tiered incentive). During this phase, participants make efforts to learn about the program in order to determine whether or not to proceed.

- Customers become aware of the program through marketing efforts or through word-of-mouth from others in the industry or who have worked with this program in the past.
- High levels of program satisfaction for program participation generally begins in this phase, as they learn they can receive the audit and report portion at no cost. Some DI and audit participants with newer buildings and/or recent energy efficiency upgrades are aware they likely will not qualify to participate in the tiered incentive program component at this stage. The audit primarily serves an educational role for these individuals, many of whom intended to use the information as they made decisions about future energy efficiency projects.
- Some customers experienced difficulties in communication with Xcel Energy and CenterPoint Energy in this phase. These customers cited their own willingness to make phone calls regularly and persistently as a driving factor behind their ability to participate in the program.
- Near participants reported exiting the program at this phase due to real and perceived program limitations that would have prevented them from reaching the minimum tier of 15%. Some individuals in this category expressed some disappointment that their buildings did not qualify. Limitations to participation cited by interviewees include:
 - Minimum project savings of 15% for tiered incentives.
 - Lack of funding available to complete tiered incentive program component.
 - Wanting to allow appliances to live out their full life.
 - Challenges integrating MFBE program with other renovation projects.

Audit to Direct Install

This phase applies to DI and audit participants and tiered incentive participants. During this phase, participants undergo an energy audit to identify potential areas to improve energy efficiency. The ensuing audit report helps customers determine which projects may be cost-effective and whether or not they may be able achieve energy savings of 15% or higher.

- Some DI and audit participants who did not qualify for the program expressed disappointment that their buildings did not reach the 15% savings threshold. For the most part, however, this did not have a significant effect on overall satisfaction with the program, as customers felt the information

from the audit report provided enough background to be able to move forward with other energy efficiency upgrades.

- Those who received both an energy audit and a direct install were highly satisfied with the program overall, regardless of whether they went on to participate in the tiered incentive program component. The combination of the education provided through the audit and audit report and the energy savings provided through the direct install provided enough benefits to most customers that additional savings achieved through the tiered incentive felt like a bonus. This portion of the program drives program participation.
- With some exceptions, participants expressed high satisfaction with staff members, in particular with implementer and auditor staff. Although the initial “contact to audit” phase presented communication challenges for some participants, by the time those participants scheduled and completed the audit, those challenges appear to have primarily subsided. By this point in the process, the majority of participants were pleased with the simplicity of the program.
- While most participants had not received complaints from tenants about the products installed through the direct install process, some interviewees questioned the decision to install CFL bulbs in some areas and LED bulbs in others. Others noted difficulties installing showerheads in units where tenants or owners had purchased their own. Especially in buildings where occupants own their units, the direct install presented a barrier to tiered incentive participation, as approval processes were slowed or halted by individual stakeholders within the building.
- Approval from a board of directors before pursuing program participation slowed the participation process for some participants during this phase. This presented challenges particularly in cases where approval from unit owners was required to move forward.

Post- Direct Install

Although neither near- nor DI and audit participants remain in direct contact with the program after the direct install, interviews suggest that DI and audit participants may continue to engage with the program results through implementation or consideration of energy efficiency upgrades suggested in the audit report.

- DI and audit participants who did not achieve the minimum 15% savings generally considered themselves to have participated in the program. While some indicated that they would have liked to reach the 15% tier, others had difficulty recalling the portion of the program in which rebates are offered to those who reach this minimum. This suggests that the main motivator to participation is the educational aspect the audit provides and the energy savings offered through the direct install.
- Some DI and audit participants were aware that they would not reach the 15% savings tier when they applied for the program, but intended to use the information from the audit report to determine other projects that might increase energy savings.
- Some DI and audit participants did not move forward with suggested projects due to the high cost of projects. Instead, they used the information from the audit to consider other possible projects to carry out.
- Tiered incentive participants noted challenges coordinating and implementing large projects. Rebates were a strong source of motivation to complete projects, but both tiered incentive participants interviewed expressed that increased direction from Xcel Energy and CenterPoint Energy would have improved program experience.
- Tiered incentive participants indicated that bureaucratic details (paperwork and communication delays) extended project and rebate timeline.

APPENDIX F: BENCHMARKING INTERVIEWS AND SECONDARY ANALYSIS RESULTS

Introduction

As part of EMI Consulting's ongoing evaluation of Xcel Energy's 2018 efficiency programs, the EMI Consulting evaluation team conducted telephone interviews with key staff at four other utilities and non-profit organizations. These organizations manage and, in some cases, implement programs similar to the Xcel Energy/CenterPoint Energy MFBE program. The evaluation team also conducted secondary research on seven peer organizations. The organizations were chosen in collaboration with Xcel Energy/CenterPoint Energy program staff and were selected for their similarities to and differences from the Xcel Energy/CenterPoint Energy program.

We conducted this research to identify opportunities to improve the Xcel Energy/Center Point Energy MFBE program based on a comparison of peer organizations' design, delivery, and processes. In addition, program benchmarking allowed the evaluation team to compare their incentive levels, savings, budgets and other key metrics the performance of other programs.

This memo shares preliminary results from both the interviews with peer organizations and the secondary data analysis. We identify key findings, review program performance indicators, compare program design elements, and discuss challenges and potential solutions offered by peer multi-family program managers.

1. Key Findings

The following bullets present key findings from the peer program benchmarking interviews and secondary data analysis.

- **Most, but not all, offer free audits.** Of the seven peer organizations, six offer audits as part of their programs of audit. all five free audits are described as being closer to a “high level assessment” or “walk-through” than anything in-depth. The majority of these utilities offer audits as immediate precursors to direct installation of measures.
- **Cost savings drive program participation.** Like the Xcel Energy/CenterPoint Energy program, the potential for cost savings was perceived to be the main driver of program participation at peer organizations. Program staff at other organizations reported that participants not only find the free direct install measures appealing, but also find significant value in the opportunity to make capital improvements to facilities with guidance from the utilities.
- **Limited existence of recommended contractors for projects.** Only three organizations offer recommendations for contractors for upgrades. Of these organizations, two organizations offer to work directly with recommended contractors to complete projects.
- **Eligibility criteria for custom or tiered incentives differ significantly between utilities.** The MFBE program contains all major program offerings of other utilities' multi-family programs. While the MFBE program requires meeting a 15% savings threshold, criteria for participation among peer utilities are typically less restrictive in terms of energy savings (e.g., a 10% savings threshold) but may be more restrictive in terms of the required diversity of measures (e.g., requirement to install

measures from at least two of four measures categories, including envelope, heating/cooling, water heating, and appliance/lighting).

Program Design and Operation

The evaluation team compared the MFBE program structure to seven other peer programs. As a way to ground this analysis, the evaluation team first categorized key elements of the program design and operation for each program. To begin, the evaluation team identified how long each program had been in operation; Table F-1 provides this information for each peer utility. The peer programs for each of these organizations had a wide distribution of years of operation, ranging from two to twelve years. Four of the utilities had only been operating their MF programs for two or three years, while the other three had been operating for at least ten years.

Table F-1. Tenure of Multi-family Programs by Peer Organization

Organization	Years in Operation
Peer Organization A	2 years
Peer Organization B	12 years
Peer Organization C	2 years
Peer Organization D	11 years
Peer Organization E	10 years
Peer Organization F	3 years
Peer Organization G	3 years

Next, the evaluation team compared the components included in each program. This comparison is key to understanding the context for each program and what may or may not be applicable to Xcel Energy and CenterPoint Energy. Figure F-1 provides an overview of each type of program component present at each peer organization.

Table F-2. Program Components by Peer Organization

Organization	Free Energy Audit	Free DI Measures	Prescriptive Rebates	Custom Rebates	Contractor Recommendations	LI-specific Incentives
Xcel Energy MN / CenterPoint Energy	X	X	X	X		X
Peer Organization A	X	X		X	X	X
Peer Organization B	X	X	X	X	X	
Peer Organization C	X	X		X		X
Peer Organization D	X	X	X	X		X
Peer Organization E			X			X
Peer Organization F		X	X	X		
Peer Organization G		X	X			

As shown in Table F-1, each of the eight different organizations included in this study (including the seven peer organizations included in the secondary analysis as well as the Xcel Energy/CenterPoint Energy MFBE program) has a unique program structure that is made up of five key components: an energy audit, direct install measures, prescriptive incentives, custom incentives, and contractors recommendations, if needed to perform projects.

Five out of eight organizations perform free energy assessments for participants that provide initial recommendations for measures and areas for improvement.

- Four out of eight organizations conduct this audit with implementation staff.
- One out of eight organizations work with a “building solutions provider” who submits an application to the utility for the customer. The provider will also conduct the building assessment, calculate savings, and work with the customer to develop final recommended building improvements.

All eight organizations provided direct install measures for participants. The measure portfolio typically includes some combination of:

- Boiler tune-ups
- Interior LED lamps, fixtures, and exit signs
- Exterior LED fixtures, including wall packs, floodlights, canopy lights, and pole lights
- Occupancy sensors
- ShowerStar showerheads and adaptors
- WaterSense labeled faucet aerators
- Water heater pipe insulation
- Programmable digital thermostats
- 3 tier advanced power strips
- Weatherization services

Five out of eight organizations offered prescriptive incentives for participants for specific measures installed beyond the direct install measures. These prescriptive measures include:

- Air sealing
- Insulation
- Refrigerator decommissioning
- Heat pump water heater
- Tankless water heater
- ENERGY STAR-qualified ventilation system
- Windows and sliding glass doors

Six out of eight organizations offered custom incentives for participants. These incentives were calculated for each participant by the utility and are based on project cost, projected savings, and equipment type.

Three out of eight organizations either recommend specific contractors for improvement projects or have a pre-approved contractor network that participants can choose from.

- In order for contractors to be included in the pre-approved network, they must meet certain metrics and performance criteria.

The portfolio of measure offerings varies across the eight different utilities included in this study. For a detailed breakdown of these measures, please see Table F-3 below.

- Eight out of eight organizations offer incentives for lighting measures such as occupancy sensors, common area lighting upgrades, and exterior lighting fixtures.
- Six out of eight organizations offer custom incentives that allow participants to bundle certain measures together to create a unique upgrade package that suits their own building's needs.
- Three out of eight organizations offer incentives for envelope and air sealing measures.
- Two out of eight organizations offer incentives for EnergyStar appliances.
- One organization offers incentives to offset a portion of the cost of a comprehensive energy (ASHRAE Level 2) and combustion safety assessment.

Table F-3. Measures Offered by Peer Organizations

Peer Organization	Measure	Rebate Type	Low Income /Market Rate
Peer Organization A	Custom upgrades	Custom	LI
	Direct install measures (LEDs, water-saving showerheads, water-saving faucet aerators, water heater blanket)	Free	

Peer Organization	Measure	Rebate Type	Low Income /Market Rate
Peer Organization B	Direct install measures (LED bulbs, showerheads, faucet aerators, pipe insulation)	Free	MR
	Air sealing	Custom	
	Insulation	Prescriptive	
	Energy Star Appliances	Prescriptive	
	Refrigerator decommissioning	Prescriptive	
	Common area lighting	Calculated	
	Custom upgrades	Calculated	
Peer Organization C	Direct install measures (LEDs, high efficiency shower heads, high efficiency faucet aerators)	Free	LI
	Custom upgrades	Custom	
Peer Organization D	Direct install measures (LEDs, programmable thermostats, advanced power strips, boiler tune-ups, weatherization services)	Free	LI
	Custom upgrades	Custom	
Peer Organization E	Air sealing	Prescriptive	MR/LI
	Insulation	Prescriptive	
	Direct install measures (LEDs, high performance showerheads, faucet aerators, programmable thermostat)	Free	
Peer Organization F	Custom upgrades from four categories (envelope, HVAC, domestic hot water, lighting and appliances)	Custom/ tiered	MR
	Interior lighting fixtures	Prescriptive	
Peer Organization G	Occupancy sensors	Prescriptive	MR
	Exterior Lighting Features		
	Weatherization		

Three of the four organizations interviewed mentioned planned additions to their current measure offerings. These measures included evaporative cooling, envelope sealing, and smart thermostats. All of the organizations interviewed for this study reported that lighting was the most popular measure installed by program participants. In addition to the measures listed above, Peer Organization F also offers an incentive for customers who pursue an audit through a third-party company (i.e., a company that conducts energy audits but is unaffiliated with the utility or implementor staff).

Requirements for issuing incentives also varied across organizations. While the Xcel Energy and CenterPoint Energy MFBE program requires at least 15% energy savings and positive societal test scores, three organizations reported that the measure must have positive societal test scores or total resource cost scores and did not specify required energy efficiency targets. One organization reported that, in order to receive a rebate each measure had to pass a cost-effectiveness test, but that funding levels for each rebate were up to their discretion as long as the savings goals for the program were met for each year. Another organization requires that projects must improve building energy efficiency by 10% from existing conditions and that, in order to receive funding, a participant

must install a minimum of two upgrade measures in at least two of the four measure categories (envelope, heating/cooling, water heating, and appliances/lighting).

Key Performance Indicators

Next, the evaluation team collected information on key performance indicators, including: (1) target and achieved program savings, (2) annual budgets, (3) program participation goals, and (4) program participation requirements. While information regarding reported savings was not available for all benchmarked programs, the data indicates no clear trend in savings goals across organizations. Several organizations reported savings that were three to four times higher than other organizations. When viewed in tandem with annual budget, however, organizations with higher budgets typically have higher savings. It is also important to note that reporting for budgets is inconsistent across programs and utilities, which may produce some inconsistencies in how these values are benchmarked against each other. In an effort to counteract this, the evaluation team calculated a normalized estimate of savings (represented as annual BTU savings) achieved per dollar of program budget where possible.

Table F-4. Benchmarked Energy Savings by kWh and dth

Organization	Program Type*	Year	Program Budget	Annual Savings in BTU	Annual BTU per \$1 of Budget
Peer Organization A	LI	2017	\$3.5 MM	1.9 MM	0.5
Peer Organization B	MR	2017	Unavailable	17.6 MM	Unavailable
Peer Organization C	LI	2017	\$3.2 MM	5.8 MM	1.8
Peer Organization D	LI	2016	Unavailable	Unavailable	
Peer Organization E	MR/LI	2017	\$1.3 MM	4.4 MM	3.4
Peer Organization G	MR	2017	\$1.8 MM	Unavailable	Unavailable
Peer Organization F	MR	2018	\$1.2 MM	3.6 MM	3

MR = Market rate, LI = Low-income. Reported savings values are rounded for consistency.

Xcel Energy MN includes prescriptive savings in their Multi-family program, CenterPoint Energy counts Multi-family prescriptive savings towards other programs.

Table F-5 below provides information regarding participation goals at each utility. Similar to the information reported above, participation goals were not communicated consistently. Some organizations reported goals as the number of apartment units that participated in the direct install, one organization reported goals as the number of audits completed, and one organization report goals as whole building participants. Additionally, some goals presented below represent estimates reported by the utility representative rather than official values.

Table F-5. Program Participation Goals

Organization	Program Type	Years	Participation Achieved	Participation Goal	Participation Goal Type
Peer Organization A	LI	2017	2,565	-	Apartment units
Peer Organization B	MR	2017	3,750	-	Apartment units

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Peer Organization C	LI	2017	-	900	Audits
Peer Organization D	LI	2016	-	-	-
Peer Organization E	MR/LI	2017	-	3,000	Apartment units
Peer Organization G	MR	2017	-	-	-
Peer Organization F	MR	2018	-	150	Buildings

**MR = Market rate, LI = Low-income*

Program Participation Requirements

The peer organizations included in this study had a distinct set of program participation requirements across the seven different organizations included in this study. Table F-6 below provides a detailed breakdown of these requirements across organizations.

Table F-6: Peer Organization Participation Criteria

Organization	Direct Install Participation Requirements	Custom Rebate Requirements
Peer Organization A	<ul style="list-style-type: none"> • Building has 5 or more units • Building has a central heating system • 67% of Building population is at or below 200% of the federal poverty level • Pay utility for energy bills 	<ul style="list-style-type: none"> • Pass a cost-effectiveness test • Positive societal test result
Peer Organization B	<ul style="list-style-type: none"> • Classification of property as a "campus" • Pay utility for energy bills 	<ul style="list-style-type: none"> • Pass a total resource cost test
Peer Organization C	<ul style="list-style-type: none"> • Be an IRS designated 501(c)3 non-profit • Serve an income-qualified community as a central part of building mission. • Own or have a long-term lease of the building (government-owned buildings do not qualify). • Pay utility for energy bills 	<ul style="list-style-type: none"> • Positive societal test result
Peer Organization D	<ul style="list-style-type: none"> • Meet specific income requirements • Pay utility for energy bills 	<ul style="list-style-type: none"> • Unknown
Peer Organization E	<ul style="list-style-type: none"> • Multi-family properties containing (3) or more individual residential units • Multi-family properties with a high number of income-eligible customers • Public housing authorities 	<ul style="list-style-type: none"> • Unknown
Peer Organization G	<ul style="list-style-type: none"> • Pay utility for energy bill • Building has 5 or more units • Building is an existing building • Participant must complete program 	<ul style="list-style-type: none"> • Projects must improve building energy efficiency by 10% as compared to existing conditions • Install a minimum of two upgrade measures in at least two of the four measure categories (envelope, heating/cooling, water heating, and appliances/lighting).
Peer Organization F	<ul style="list-style-type: none"> • Residents or owners/agents of apartment and condominium complexes 	<ul style="list-style-type: none"> • None

Customer Satisfaction Across Peer Organizations

To understand how the peer programs compared to the MFBE program, the evaluation team also asked peers about key drivers of customer satisfaction with their programs. The peer organizations interviewed noted two key drivers: (1) the ability to offer custom incentives, and (2) the enhanced relationship between the customer and the utility via the program. This section details each of these drivers below.

One organization noted that while custom incentives can complicate the program for program participants, custom incentives remain a strong component. Because program staff can create a custom package that works for each individual participant, the program has the ability to be much more inclusive to all multi-family units interested in the program. This allows for the program to be less restrictive and reach far more people than a standard prescriptive program. One peer utility staff member stated:

“I think what makes people immediately happy is the ease of participating in the program but, really, what keeps them coming back is seeing that they can cancel out line items in their operating budget, or significantly reduce them, by offsetting them with rebates.”

Two peer utility program managers also identified the ease of communication as a key driver of program satisfaction. Instead of calling a customer service line, the participant has a dedicated staff member that is willing to help them discuss potential projects and potential savings opportunities. Additionally, one organization reported that if a customer is initially denied a rebate, the organization will continue to work with the customer until their rebate is approved. One program manager noted:

“[We have a] full on-site team dedicated to handling a full-on processing of rebates. Projects aren’t rejected. We work through that with them, because they are all trying to work towards the same goal.”

Eligibility Requirements

Each utility included in this study has a distinct set of program participation requirements. These requirements include:

- Classification as an “affordable building”
- Buildings with five or more units
- Buildings where at least 50 percent of the building’s gross heated footage is residential space
- 67% of the building population is at or below 200% of the federal poverty level
- Buildings must be located in specific utility territories
- Building can be classified as a “campus”
- Each unit within the building has a kitchen and a bathroom
- Building has a common area

Challenges and Opportunities

The evaluation team also asked each utility that was interviewed to share barriers to program success as well as opportunities driving program success. The below section offers a brief summary of noteworthy discussion points from key program staff.

Challenges

- Two organizations identified that staying in front of repeat program participants often proved difficult. When program participants have participated frequently in the program, there is a tendency for these participants to reach out to program staff in the middle of a retrofit and ask to receive rebates for the upgrades. As there is no guarantee that a rebate will be approved, it is often difficult for program participants to understand why certain projects may be eligible for a rebate as opposed to others.
- One organization identified that the long wait between applying for a custom rebate and received an answer from the engineers at the utility is often frustrating for program participants. Since timelines are often not guaranteed, participants often wait for an indeterminate amount of time before their rebate is approved.
- Due to the length of time required to process a custom rebate as well as the lack of clarity surrounding how these rebates are calculated, two organizations also identified that the program can sometimes feel complex and “black-boxy” to participants.
- Three organizations identified that customers often lose interest in the program once work has been completed on an initial project. This means that it can be difficult to keep participants engaged in the program and come back as repeat participants.
- Two organizations mentioned that the “pool” of available units in their service territory to retro-fit with direct install measures is getting smaller and smaller. This may lead to lower participation levels in later years, and is forcing organizations to think critically about potential ways to increase savings as the program ages.

Opportunities

- One organization noted that while custom rebates can complicate the program for program participants, custom rebates are a strong component of the program because they allow the program to offer substantially more rebates and reach far more people than a standard prescriptive program.
- One organization stated that the organization has a strong network of stakeholders that keep program participation level high. These stakeholders are frequent participants in multi-family and low income working groups and are the main source of potential program participants referred into the program.
- Three programs staff identified that it was difficult and cost prohibitive to reach small, owner/operator multi-family buildings. Organizations included in this study stated that they often worked within existing networks of large apartment management companies, and that these companies proved to a continual source of potential projects.
- One organization reported that if a customer is initially denied a rebate, the organization will continue to work with the customer until their rebate is approved. This derives from the mentally

that both the customer and the organization both have the same goal of decreasing energy, so both should work together to achieve that goal.

- Two program staff identified the ease of communication for participants to their utility that the program provides. Instead of calling a customer service line, the participant has a dedicated staff member that is will to help them discuss potential projects and potential savings opportunities.