MidAmerican Energy Company

Nonresidential Energy Solutions Program Impact and Process Evaluation

TETRA TECH

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1.0 EXECUTIVE SUMMARY

MidAmerican Energy Company (MidAmerican) offers energy efficiency programs to their customers throughout their Iowa and Illinois service territories. These programs cover electric and natural gas energy efficiency measures, as well as other services such as technical assistance provided through the Nonresidential Energy Solutions program. This report details the activities, results, and recommendations from the evaluation of program year 2020 (PY2020), January 1, 2020, through December 31, 2020, for Iowa and Illinois.

Based on discussions with MidAmerican staff and the program implementer, and a review of program participation data, a collective decision was made to evaluate the Direct Project Assistance program component only at this time due to effects of COVID-19 that resulted in lower participation levels in the Small Business Express program component in PY2020. Participation in Small Business Express has been increasing throughout PY2021. To maximize the usefulness of the program evaluation, the collective decision was made to conduct an evaluation of the Small Business Express program component based on PY2021 participation[1].

1.1 BACKGROUND

The Nonresidential Energy Solutions program focuses on existing commercial and industrial customers who receive electricity and/or natural gas from MidAmerican[2]. The program promotes comprehensive energy efficiency through two offerings: 1) Direct Project Assistance (DPA), and 2) Small Business Express. Nexant[3] delivers comprehensive services for this program. This includes providing Energy Managers who are proactive in their outreach and offer services such as assisting customers with the pre-approval process and project implementation.

In PY2020, the DPA program component consisted of all custom projects. Most custom projects included energy saving equipment not covered by the Iowa Technical Reference Manual (Iowa TRM). The predominant equipment for PY2020 was custom lighting/sensors (over 80 percent of electric energy savings). This equipment was custom in nature because prescriptive rebates were not available for the scope of work being pursued—for example, projects replaced fluorescent fixtures with high bay LED fixtures, fixtures were not DLC[4] or ENERGY STAR® certified at the time of project closeout, or post-installation fixture layouts were substantially different from the pre-installation case. Non-lighting projects were custom in nature because they generally required custom analyses, including trend data analysis, bin analysis from manufacturer, or industry-standard performance curves. Some DPA custom project savings utilized the Iowa TRM to determine savings. These custom projects were included in the Nonresidential Energy Solutions program due to customer need, project complexity, and/or project size.

[1] MidAmerican and the Tetra Tech team recognize that stakeholder preference is to have all programs evaluated by December 31, 2021 in order to help MidAmerican with its next energy efficiency planning process. Given this, the Tetra Tech team will initiate evaluation planning for the Small Business Express program component in the Fall of 2021, so that evaluation activities can be completed early in 2022.

[2] Transportation gas customers with daily metering are ineligible for gas incentives. Customers with monthly metering under the Monthly Metered Transportation service tariff are eligible for energy efficiency incentives.

[3] Nexant was acquired by Resource Innovations in May, 2021.

[4] DLC certification is handled by The DesignLights Consortium® (DLC), a non-profit organization dedicated to accelerating the widespread use of high-performing commercial lighting solutions. The DLC established product quality specifications to promote high-quality, energy-efficient lighting solutions. See https://www.designlights.org/

1.2 EVALUATION METHODOLOGY

The DPA program component evaluation included both impact and process activities. To help guide both, the Tetra Tech team conducted interviews with MidAmerican program staff and Nexant implementation staff. For the impact evaluation, the Tetra Tech team reviewed the Iowa TRM Version 4.0 (Iowa TRM V4) and the resulting energy savings for a sample of projects to make sure tracked savings were appropriately calculated. For a sub-sample of these projects, site visits were conducted. Additionally, the Tetra Tech team conducted a literature review to help inform net-to-gross (NTG) findings.

For the process evaluation, the Tetra Tech team reviewed program materials and conducted interviews with PY2020 participating trade allies and customers. The Tetra Tech team also included equipment-related questions in an omnibus telephone survey[5] of MidAmerican nonresidential customers who had not participated in an energy efficiency program in the previous two years based on the time they were surveyed and analyzed those results to better understand the current state of the equipment market and consumers' understanding, use, and purchasing behaviors.

1.3 SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

Overall, it is the opinion of the Tetra Tech team that the Nonresidential Energy Solutions program operated effectively in PY2020, resulting in considerable energy and demand savings and high participant satisfaction ratings. Staff roles and responsibilities were clearly delineated and understood by all team members, and program and implementation staff reported strong working relationships.

Program participants and trade allies interviewed reported high levels of satisfaction with the program and services provided by Nexant. They reported being happy with their interaction with program staff and technical support provided through the program, indicating that they received the support they needed from Nexant and MidAmerican. The majority of participants interviewed became aware of the program through *previous interactions with other MidAmerican programs or trade allies*. Participants interviewed indicated that the process of enrolling was easy and that the program requirements were clearly explained.

Desire to reduce energy costs and *return on investment* were the primary decision drivers for participants interviewed to get involved with the program. *Compatibility with existing equipment* and *budget availability* were the most important factors when considering new energy-using equipment. In particular, the majority of participants interviewed noted that *lack of budget* is the main obstacle when considering implementing energy efficiency improvements.

When asked about COVID-19 impacts, trade allies reported project delays, particularly related to receiving equipment and other materials, and mixed feelings about COVID-19 influences affecting their work in the near future. Similarly, most of the participants interviewed reported COVID-19 impacts such as delays due to supply chain issues or closed business locations. Looking forward, the majority of participants interviewed reported planning to make energy efficiency improvements in the next six to 12 months.

The Tetra Tech team found that MidAmerican correctly calculated savings through the appropriate methodologies and used correct key input parameters during project implementation. This resulted in high evaluated gross realization rates overall. In Iowa, energy (kWh) and demand (kW) realization rates were 93.5 percent and 94.6 percent, respectively. Realization rates for therms and peak therms were

[5] This telephone survey effort was completed in the Fall of 2020.

both 100.6 percent. These realization rates were impacted primarily by customers making post-implementation operational changes and were contrary to what was discussed during the project installation. There were no savings adjustments identified in Illinois, resulting in realization rates of 100 percent for all fuel types.

Table 1. Savings Impacts

Impact	Tracked Gross Savings*	Evaluated Gross Realization Rate**	Evaluated Gross Savings	NTG Ratio***	Evaluated Net Savings***
Iowa					
kWh	17,099,660	93.5%	15,980,666	83%	13,263,953
Peak kW	2,402	94.6%	2,272	83%	1,886
Therms	28,577	100.6%	28,749	83%	23,862
Peak Therms	78	100.6%	78	83%	65
Illinois					
kWh	3,427,729	100.0%	3,427,729	83%	2,845,015
Peak kW	435	100.0%	435	83%	361
Therms	19,530	100.0%	19,530	83%	16,210
Peak Therms	38	100.0%	38	83%	32

* Tracked savings shown are from PY2020 tracking data received from MidAmerican on March 29, 2021.

** The realization rate is the ratio of evaluated gross savings to tracked gross savings.

*** NTG ratio is based on secondary research. The NTG information in Iowa is for informational and program design only.

**** Evaluated net savings are derived by multiplying the evaluated gross savings by the NTG ratio.

The following section presents the key findings from the evaluation and associated recommendations.

Finding #1: The Tetra Tech team found that the tracked savings for most of the measures reviewed were reasonable and thus were not adjusted. Projects that were adjusted typically had adjustments resulting from site visits.

The savings for most measures reviewed were reasonable and completed with a high degree of accuracy. Specifically, MidAmerican's tracked savings estimates used appropriate calculation methodologies, and the site-specific parameters were consistent with project documentation and secondary research for the non-DLC or ENERGY STAR certified equipment. Changes to project-level savings were typically small and mostly due to post-implementation changes that were discovered during the site visits for inputs such as hours of operation or equipment setpoints and were out of the program's control.

> *Recommendation #1: The Tetra Tech team recommends that MidAmerican continue current practices for project-level inputs and information and continue to use current quality assurance/ quality control (QA/QC) practices to ensure sustained accuracy for project savings estimates.*

Finding #2: It appears as though MidAmerican's custom project savings calculator is not including interactive effects for waste heat, which impacts savings estimates for projects such as custom lighting/sensors.

In discussing this with MidAmerican, the utility recognizes that the Iowa TRM provides interactive effects for waste heat in the prescriptive lighting calculations. Nexant, as the program implementer, may be applying the interactive effects in their calculations before projects are sent to MidAmerican for

review. The use of interactive effects for custom lighting projects would increase accuracy by accounting for the reduction of waste heat from inefficient lighting products.

> *Recommendation #2: MidAmerican should work with the Tetra Tech team and Nexant to assess the utility's process for accounting for interactive effects and document this process. The Tetra Tech team recognizes that there are dual-fuel nuances for MidAmerican's Iowa customers. This recommendation only applies to program-eligible Iowa customers where MidAmerican provides both the electric and natural gas services.*

Finding #3: As a result of site visits, the Tetra Tech team found three projects where the schedule or equipment setpoint changed since the project was completed, resulting in savings adjustments.

Out of the eight site visits conducted, the Tetra Tech team found three projects where the schedule or setpoint changes had been changed since project completion, and thus required updates to savings calculations. Two projects had equipment operating hours that were reduced after the installation of the equipment. For the third project, the customer experienced system instability and reverted the setpoint almost to the baseline value, which negated most of the savings. For these three projects, the tracked savings were calculated correctly given the schedule and setpoints present at the time of project completion.

> *Recommendation #3: In discussing these three projects with MidAmerican and Nexant, Nexant agreed that they will follow up with the refrigeration setpoint project to determine if they can assist with an energy control system that can realize a majority of the lost savings.*

Finding #4: The secondary NTG research reflects that, for similar programs, there is a range of values.

Benchmarking of other similar programs in the Midwest, including Illinois, reflected NTG ratios ranging from 69 percent to 89 percent. Additionally, in the last evaluation cycle, the Tetra Tech team conducted primary NTG research, which resulted in a NTG recommendation of 83 percent.

> *Recommendation #4: The Tetra Tech team recommends that MidAmerican continue using a NTG ratio of 83 percent for the Nonresidential Energy Solutions program in Illinois.*

Finding #5: Interviews with program participants and trade allies show that satisfaction with the program and the services provided by Nexant is high.

The participants and trade allies interviewed expressed high satisfaction with the program and found Nexant's services and technical support to be valuable. Experience with previous projects, contractors, and MidAmerican staff were the primary sources of program awareness. Energy Managers felt that the satisfaction and outreach could be strengthened through additional services, if possible.

> *Recommendation #5a: The Tetra Tech team recommends that MidAmerican continue to have program staff and Key Account Managers build and leverage relationships to proactively engage customers in the program and in particular, early in project development. This includes working with customers to determine if they have corporate policies related to energy efficiency or sustainability plans that they need to consider when purchasing new equipment or improving their buildings, and helping customers tie these plans to MidAmerican's energy efficiency programs to encourage participation. The Tetra Tech team recognizes that Nexant staff have been continually providing program outreach support, and that MidAmerican Key Account Managers and trade allies also have been working to help build relationships with customer and increase awareness of energy efficiency programs.*

Recommendation #5b: The Tetra Tech team recommends that MidAmerican continue efforts to maximize customer satisfaction with the program by communicating future program changes to customers, Energy Managers, and trade allies. Communications should continue to include messaging around changes to the program and incentive levels.

Recommendation #5c: The Tetra Tech team recommends that the program continues to provide ongoing meetings and/or workshops to existing and new customers to educate them about new measures and technologies[6].

Finding #6: Most participants and trade allies were impacted by COVID-19, but participants were more optimistic about changes in the near future.

Despite experiencing some delays, when asked about the likelihood of making various business decisions over the next six to 12 months, most participants reported a high likelihood of purchasing new energy-efficient equipment and looking for additional ways to save energy that are low cost or no cost. All eight trade allies interviewed reported delays in equipment and material supplies, four reported delays in customer projects, and three reported that customer projects were canceled. In terms of the effect COVID-19 will have on them over the next six months, perspectives were split—a few trade allies thought things might start getting better and a few others thought that things may stay the same or get worse. The difference of opinion among the trade allies did not correlate with any trade ally characteristics such as size or type.

Recommendation #6a: The Tetra Tech team recommends that MidAmerican continue to monitor COVID-19 and its potential impacts. This includes continuing to implement COVID-19 safety practices, and potentially adjusting pre-approval timeframes and/or incentives again, if needed.

Recommendation #6b: In the next energy efficiency plan cycle, consider including low cost or no cost measures as part of this program's offerings.

[6] The Tetra Tech team recognizes that MidAmerican regularly provided these types of in-person events, and that COVID-19 created substantial challenges to being able to offer these types of services.

2.0 INTRODUCTION

This report presents the detailed impact and process evaluation results for the Nonresidential Energy Solutions program, specifically the Direct Project Assistance component, for PY2020 in Iowa and Illinois.

2.1 PROGRAM DESCRIPTION

The Nonresidential Energy Solutions program focuses on existing commercial and industrial customers who receive electricity and/or natural gas from MidAmerican[7] and is implemented by Nexant. The program promotes comprehensive energy efficiency through two offerings: 1) Direct Project Assistance (DPA), and 2) Small Business Express (SBX). These offerings are tailored to the unique needs of nonresidential customers by size and purpose. Eligible customers receive expert advice and financial incentives to help offset the costs of new energy efficiency investments. This program also serves agriculture and market-rate multifamily customers. For multifamily properties, the existing structure must have three or more units and be served through nonresidential rates. These participants generally are property management companies or multifamily housing property owners.

In PY2020, the DPA program component consisted of all custom projects. Most custom projects included energy-saving equipment not covered by the Iowa Technical Reference Manual (Iowa TRM). The predominant equipment for PY2020 was custom lighting, including sensors (over 80 percent of electric energy savings). This equipment was custom in nature because prescriptive rebates were not available for the scope of work being pursued—for example, projects replaced fluorescent fixtures with high bay LED fixtures, fixtures were not DLC[8] or ENERGY STAR® certified at the time of project closeout, or post-installation fixture layouts were substantially different from the pre-installation case. Non-lighting projects were custom in nature because they generally required custom analyses, including trend data analysis, bin analysis from manufacturer, or industry-standard performance curves. Some DPA custom project savings utilized the Iowa TRM to determine savings. These custom projects were included in the Nonresidential Energy Solutions program due to customer need, project complexity, and/or project size.

Nexant delivers comprehensive services for this program. This includes providing Energy Managers who are proactive in their outreach and offer services such as assisting customers with the pre-approval process and project implementation. Nexant is responsible for reviewing applications, tracking program data, outreach to trade partners, technical assistance, implementation support, contracting with qualified service providers to complete system optimization studies, verifying equipment installations, and approval of customer rebates. They are also responsible for recruiting and training Qualified Service Providers (QSPs) and maintaining the web-based energy assessment tool (the “mobile assessment tool”) for the Small Business Express offering. Nexant also provides quality assurance and quality control (QA/QC) of completed projects.

[7] Transportation gas customers with daily metering are ineligible for gas incentives. However, customers with monthly metering under the Monthly Metered Transportation service tariff are eligible for these energy efficiency incentives.

[8] DLC certification is handled by The DesignLights Consortium® (DLC), a non-profit organization dedicated to accelerating the widespread use of high-performing commercial lighting solutions. The DLC established product quality specifications to promote high-quality, energy-efficient lighting solutions. See https://www.designlights.org/

Direct Project Assistance

Through DPA, the program provides assistance to participating customers by identifying and pursuing energy management and energy efficiency improvements in mid- to large-sized nonresidential facilities (50,000 sq. ft or larger). Additionally, any customer that presents a custom project to the program will receive assistance, regardless of the facility's size. MidAmerican has combined traditional financial incentives with Nexant-provided Energy Managers to overcome typical participation barriers, whose job is to support each customer with a tailored approach to energy efficiency. Once enrolled, an Energy Manager works to support the customer to identify and implement energy-saving opportunities at no direct cost to the customer. Assistance includes system-specific engineering consultations, project evaluation services, and project support to motivate customers to pursue energy-saving opportunities. These services may take the form of:

- **Consultation** provides flexible, timely analysis to assist in decision-making and quick, first-order analysis/estimates.
- **Engineering support** is designed to take a comprehensive look at project-specific equipment and processes within a facility and provide a cost-effective, energy-saving recommendations.
- **Implementation support** provides varying levels of support depending on the customer's need, project complexity, and project size. This support may include answering project-specific questions, assisting with developing detailed requests for proposals, reviewing vendor bids, reviewing proposals on systems that require additional detailed study, assisting with applications for a rebate, and other support.

MidAmerican offers financial incentives to help customers overcome the economic barriers of implementing the identified energy efficiency projects. Both prescriptive and custom incentives are available to DPA participants. For PY2020, custom rebates could not exceed 50 percent of project cost, and in PY2021, that changed to 70 percent. Additionally, on March 16, 2020, project payback terms were changed from two years to 18 months[9].

Once energy-saving projects have been implemented, the customer completes a rebate application for review and processing, with assistance from MidAmerican or Nexant, as needed. The information is entered into a tracking database and processed. Verification of equipment installation occurs for projects with rebates $20,000 or greater, electrical savings of 250,000 kWh or greater, and/ or natural gas savings of 15,000 therms or greater.

MidAmerican manages direct outreach to customers through its Key Account Managers (KAMs). MidAmerican and Nexant collaborate on outreach to trade allies, providing Trade Ally Ambassadors. Trade allies play a role in supporting the program, and program materials are made available to them to assist in the selling of energy-efficient equipment.

Small Business Express[10]

Through SBX, energy assessments and installations are provided through a network of qualified service providers (QSPs). SBX is intended to specifically target small- to mid-sized nonresidential customers that are historically underrepresented in energy efficiency program participation. Typical

[9] For PY2021, project payment terms reverted back to two years.

[10] Based on discussions with MidAmerican staff and a review of program participation data, a collective decision was made to evaluate the DPA program component only at this time, as there was low participation in the Small Business Express program component in PY2020 due to COVID. A targeted evaluation of the Small Business Express program component will be completed in 2022 and will be based on PY2021 participation.

eligible small- to mid-sized businesses (less 50,000 sq. ft. and less than $100,000 per year in energy costs) include, but are not limited to, retail stores, convenience stores, offices, auto shops, light manufacturing facilities, restaurants, bakeries, dry cleaners, warehouses, and non-profit organizations.

Key challenges that face this market segment include:

- Lack of access to capital
- Insufficient time and/or resources to investigate and review energy efficiency improvements
- Leased rather than owner-occupied facilities.

To address these barriers, SBX provides:

- Various financial incentives for eligible prescriptive projects
- Minimal paperwork for the customer to apply and participate
- Approved QSPs capable of providing turnkey services from no-cost energy assessments to energy-saving project installation
- Energy assessment reports outlining the energy efficiency improvements available to the customer
- Rebates that can be paid directly to the QSP, which reduces the upfront cost to the customer.

QSPs play an important role in this program. In addition to promoting the program and recruiting eligible customers, QSPs use the mobile assessment tool to conduct an energy assessment and produce the assessment report that itemizes the identified opportunities and provides some energy economics. QSPs are also responsible for submitting all required paperwork. The energy assessment consists of a site visit to inventory existing equipment at a customer facility and identifies rebate-eligible, energy-efficiency improvements available for implementation. During the assessment, the QSP explains the program and collects all required information. The QSP also notifies the customer that the project agreement must be signed and obtains project approved/rebate reservation prior to project implementation.

2.1.1 Summary of Researchable Questions and Evaluation Activities

This section describes the analytic methods and data collection activities implemented as part of the MidAmerican Nonresidential Energy Solutions program's PY2020 impact and process evaluation. The Tetra Tech team designed a methodology to evaluate the program and address the researchable questions outlined in the program's Detailed Evaluation Plan[11], as well addressed other issues that became relevant during the evaluation process.

2.1.1.1 Key Researchable Questions

Based on discussions with the MidAmerican product manager, energy efficiency director, and implementation contractor, key researchable questions were developed and prioritized for the evaluation. These were then addressed within the customer and trade ally research as well as the

[11] A select group of Iowa Stakeholders were provided an opportunity to review and comment on the draft Nonresidential Energy Solutions Detailed Evaluation Plan in June of 2020.

impact evaluation activities. The table below outlines the researchable questions that this evaluation examined.

Table 2. Nonresidential Energy Solutions Program Researchable Questions

Researchable Questions	Activity to Support the Question
Program Design	
How effective are Energy Managers and trade allies in identifying projects?	• Program and implementation staff interviews • Participant survey • Trade Ally interviews
Do customers need additional assistance to be able to move forward with projects?	• Energy manager interviews • Participant survey
What are the primary barriers preventing customers from participating in the program? How effective has the program been at addressing these barriers?	• Program and implementation staff interviews • Energy manager interviews • Participant survey • Trade Ally interviews • Nonparticipant survey
How has COVID-19 impacted projects? Are there changes in program processes resulting from COVID-19 that may have lasting implications?	• Program and implementation staff interviews • Energy manager interviews • Participant survey • Trade Ally interviews • Nonparticipant survey
Customer Education, Outreach, and Marketing	
How effective are marketing efforts undertaken as part of the program? For example, are KAM outreach efforts effective? Are the services provided by Energy Managers useful?	• Program materials review • Participant survey • Trade Ally interviews • Nonparticipant survey
How effective is program education for trade allies? What additional support could be provided? For example, are marketing materials and strategies to trade allies successful (e.g. program fact sheets, website information, etc.)?	• Program and implementation staff interviews • Trade Ally interviews
Program Administration, Processes, and Resources	
How well are program processes developed and working? What is working well, and where are areas for improvement?	• Program and implementation staff interviews • Energy manager interviews • Trade Ally interviews
How effective is the communication between the KAMs and the Energy Managers? Is it clear to customers who they should be going to for what?	• Energy manager interviews • Participant survey
Are program quality assurance and quality control processes adequate and effective? If not, how can they be improved?	• Program and implementation staff interviews • Trade Ally interviews • Program materials review

Researchable Questions	Activity to Support the Question
Market Response	
What is the level of customer awareness of the program? What more can/should MidAmerican do to increase program awareness among its customers?	• Trade Ally interviews • Nonparticipant survey
How has the market responded to the program? Are the different types of facilities being served effectively by the program?	• Program staff interview • Trade Ally interviews • Participant survey
Program Satisfaction	
What is the level of customer and trade ally satisfaction with the program? How can satisfaction be improved, if at all?	• Participant survey • Trade Ally interviews
What is the level of customer and trade ally satisfaction with the Energy Managers? How can satisfaction be improved, if at all?	• Participant survey • Trade Ally interviews
How satisfied are customers with MidAmerican?	• Nonparticipant survey
Program Impacts	
Was the appropriate information collected to support verification activities?	• Tracking system review • Engineering desk reviews • On-site or telephone project verifications
What are tracked and evaluated gross savings for Iowa and Illinois for the evaluation period?	• Tracking system review • Engineering desk reviews
What is an appropriate NTG ratio for the program in Iowa and Illinois?	• Secondary research
Are the energy savings assumptions reasonable?	• Review of Iowa TRM algorithms • Custom project calculator review
Does information gathered from program data, telephone surveys, or project verification indicate that alternative savings algorithms should be recommended?	• Engineering desk reviews • Program information review • On-site or telephone project verifications

2.1.2 Detailed Evaluation Activities

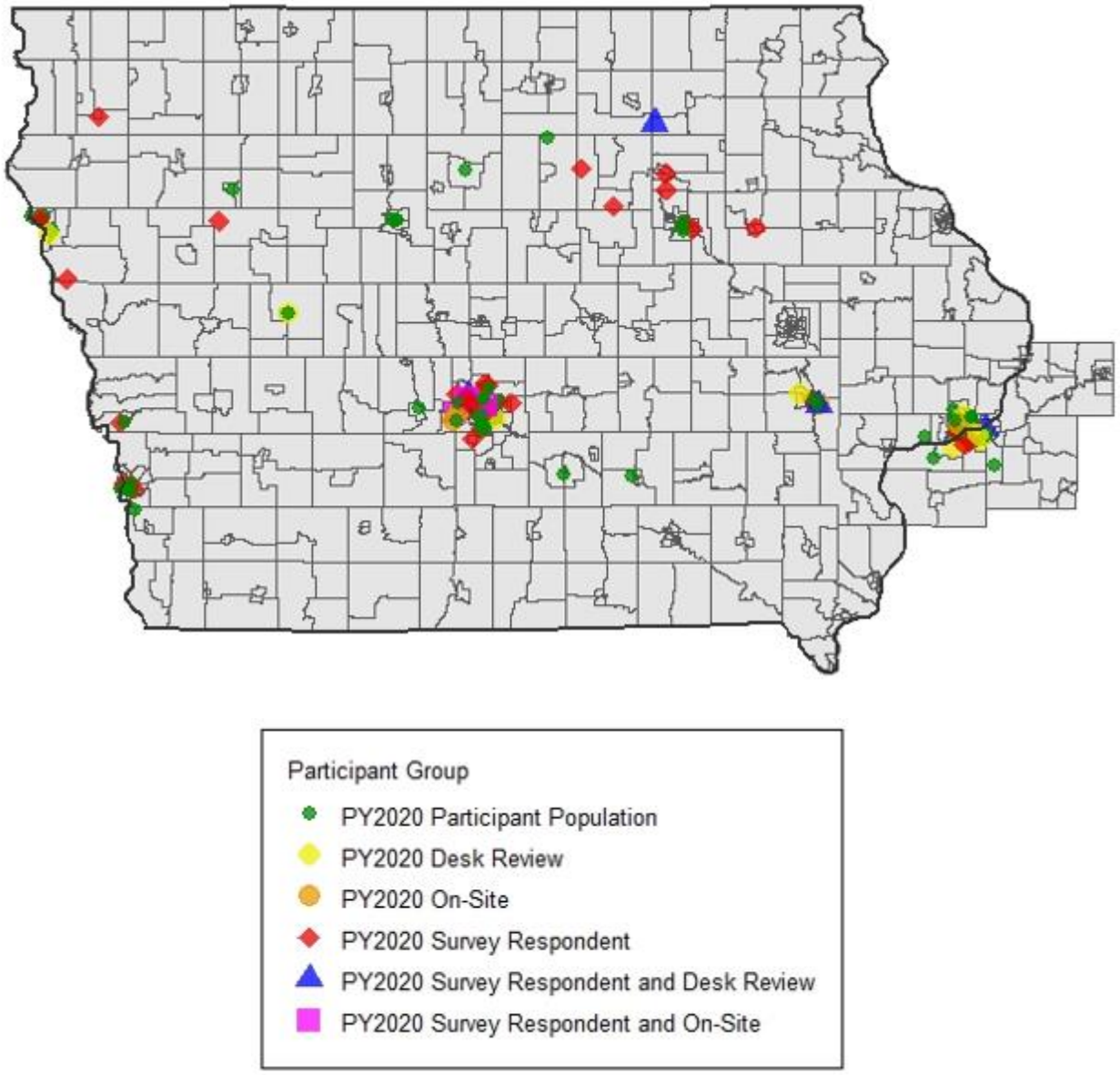
The table below documents the activities that were completed as part of this evaluation. The evaluation focused on estimating and verifying program impacts and providing key feedback on the functionality of program processes.

Table 3. Summary of Nonresidential Energy Solutions Program Evaluation Activities

	Activities
Overarching Evaluation Activities	**Program staff interviews:** Conducted in-depth interviews with the product manager and energy efficiency director, the program implementation contractor, and Energy Managers. **Tracking system review.** Analyzed the tracking database, reported savings, and documentation for consistency. **Program documentation review.** Assessed completeness of program documentation. **Net-to-gross:** Estimated NTG based on a secondary literature review of other similar programs. NTG also informs program design elements.
Impact Evaluation Activities	**Engineering/desk reviews.** Conducted engineering desk reviews of 23 projects. This included reviewing engineering inputs, assumptions, calculations, and documentation, and comparing those to the Iowa TRM V4 or industry-standard calculation methodologies, as relevant. **On-site inspections.** Completed site visits for eight projects included in the desk review population. Site visits consisted of reviewing the project with the customer, including discussion of assumptions used in savings, equipment inspection, and data collection from unit controllers and control systems.
Process Evaluation Activities	**Participant customer survey:** Completed 18 interviews with program participants—16 interviews with Iowa participating customers, one interview with an Illinois participating customer, and one interview with a participating customer in both territories. The survey was conducted with a sample of the population of PY2020 program participants. **Nonparticipant customer survey:** Completed 165 customer surveys with a random sample of nonresidential customers in MidAmerican's Iowa service territory who had not participated in a MidAmerican energy efficiency program in the past two years. **Trade ally interviews:** Conducted eight semi-structured interviews with participating contractors in Iowa and Illinois.

The figure below shows the location of MidAmerican customers who participated in the Nonresidential Energy Solutions program in green and participants who were included in the different evaluation activities (telephone survey, desk reviews, on-site inspections, and combinations of these). The Tetra Tech team notes that the map reflects a dense area assembled on the far-right side of the map. The area reflects MidAmerican's Illinois service territory.

Figure 1. Nonresidential Energy Solutions Participants and Respondents by County



Below is more detail about the methodologies used for the different evaluation activities associated with MidAmerican's Nonresidential Energy Solutions program evaluation.

- **Program and implementation staff interviews.** Tetra Tech team members interviewed the MidAmerican product manager and energy efficiency program director on April 2, 2021, and Nexant staff on April 15, 2021. The Tetra Tech team completed these interviews to better understand the program design and delivery, discuss program successes and challenges, and identify and prioritize researchable questions for the evaluation. In addition, the Tetra Tech team interviewed the Nexant Energy Managers on July 27 and July 28, 2021, to further learn about customer interactions, program experience, and opportunities for program improvement.
- **Participant data tracking review.** The Tetra Tech team received and reviewed the Nonresidential Energy Solutions program population data queried from the VisionDSM database

for projects completed in PY2020. The program tracking data provided information on participating customers, fuel type affected, incentives, and project level savings.

- **Program documentation review.** The Tetra Tech team reviewed the program's documentation. As part of assessing the appropriateness and effectiveness of program marketing and educational materials, the Tetra Tech team also reviewed program marketing and informational materials made available to customers and trade allies.
- **Participant customer survey.** The Nonresidential Energy Solutions program evaluation included a survey of sampled PY2020 program participants in Iowa and Illinois. The participant customer survey was used to largely inform process evaluation objectives. The survey investigated program delivery processes, interactions with the program staff, preferred communication channels, satisfaction with different facets of the program, and firmographic information. We leveraged past survey instruments to identify questions that warranted tracking over time. Eighteen interviews were completed by Tetra Tech team staff in August and September 2021. A copy of the participant survey can be found in Appendix B.
- **Nonparticipant survey.** The Tetra Tech team conducted a nonparticipant survey, completing interviews with 165 nonresidential customers to support the evaluations of MidAmerican's nonresidential programs in its Iowa service territory. Among other items, the questions assessed consumer awareness of different program offerings, interest in program participation and rebates, energy efficiency attitudes, and any recent energy efficiency activity. The nonparticipant surveys were administered through Tetra Tech's in-house Survey Research Center in September 2020. A summary of the results and comparisons to the Nonresidential Energy Solutions program, as applicable, are included in this report. A copy of the nonparticipant survey can be found in Appendix C.
- **Trade ally interviews.** The Tetra Tech team conducted semi-structured interviews with participating trade allies in Iowa and Illinois. In July 2021, MidAmerican provided the Tetra Tech team with participating trade ally tracking data. Interviews with participating trade allies explored perceptions of the program's design, interactions with the program staff, program operations, customer experiences, and market trends. Eight trade ally interviews were completed by Tetra Tech team staff in August and September 2021. A copy of the trade ally interview guide can be found in Appendix D.
- **NTG assessment.** In addition to primary research activities, the Tetra Tech team conducted secondary research to gather information on peer utility program goals, participation numbers, measure offerings, maturity, and NTG estimate for programs similar to MidAmerican's Nonresidential Energy Solutions program to provide additional context to evaluation results. Based on the findings from this benchmarking activity, the Tetra Tech team determined a stipulated NTG factor for the program.
- **Engineering/ desk reviews.** The Tetra Tech team reviewed a random sample of 18 custom applications in Iowa and five custom applications in Illinois. For most custom measures, the Tetra Tech team reviewed each project's custom calculator and assessed the engineering analysis and assumptions in the calculator(s), as well as supporting documentation, including monitoring and verification plans/reports and metered data. For a couple of projects, the measure's savings were more prescriptive in nature, and thus, the Tetra Tech team verified savings for these projects according to the Iowa TRM V4. Adjustments to input assumptions or methodologies were based on engineering fundamentals. Adjustments to inputs were also made, as relevant, to projects where site visits were completed. Project-specific results where adjustments were made can be found in Appendix A.

- **On-site visits.** For a subset of the desk reviewed projects, the Tetra Tech team performed on-site inspections. These eight on-site inspections included physically verifying the installation of the equipment and interviewing the customer on the operation. Data collected was used to determine if any updates to the original project calculations inputs or savings estimates were needed. The eight projects are included in the summary provided in Appendix A that outlines the changes to the project savings levels.

3.0 PROGRAM SAVINGS AND IMPACT EVALUATION FINDINGS

This section presents the results for the Nonresidential Energy Solutions program impacts for the DPA component for PY2020 in Iowa and Illinois. The impact evaluation was designed around the key researchable questions identified in the methodology section 2.1.1. First, we present the DPA program savings and then discuss the tracking, engineering, and data reviews.

3.1 PROGRAM SAVINGS

This subsection presents the electric and natural gas energy and demand savings results separately for Iowa and Illinois. For each service territory, the Tetra Tech team selected a sample of measures for review. In addition to the selected project measures, any other measure completed at the same customer premise was also reviewed to increase the number of measures reviewed.

3.1.1 Iowa

For Iowa in PY2020, the Nonresidential Energy Solutions program had 105 unique participants who completed 117 projects. From this population of participants, the Tetra Tech team selected a sample for desk reviews. The completed measures were classified by fuel source and technology strata for sampling purposes, as shown in the table below ("Measure Category"). The sample was then allocated among these strata based on the individual stratum savings and the expected uncertainty for each listed track and technology. Within each of the strata below, measures were randomly selected.

The Tetra Tech team completed desk reviews of 18 projects. The Tetra Tech team made savings adjustments to six electric savings projects and one natural gas savings project. Detailed results for the project level reviews are provided in Appendix A of this report. Generally, the evaluated savings analysis for the measures across all technologies matched the tracked savings. However, for five projects, the Tetra Tech team made larger adjustments based on hours of operation, equipment setpoint changes, or analysis results as determined through the desk reviews and site visits.

Table 4. Engineering Desk Reviews Sample by Category* - Iowa

Measure Category	Measure Count	Unique Participant Count**	Total Gross Savings (kWh)	Sampled Electric Measures	Total Gross Savings (Therms)	Sampled Gas Measures
Lighting/Sensors	71	64	13,172,887	8	0	0
Compressed Air System	3	3	597,735	1	0	0
Process Improvement	10	10	1,585,080	2	5,688	1
HVAC	18	18	473,888	1	19,423	2
Other	10	10	772,946	1	6,016	1
Process Heating/Cooling	5	5	497,124	1	-2,550	0
Total	**117**	**105**	**17,099,660**	**14**	**28,577**	**4**

* Numbers reflected in this table are from tracking data received from MidAmerican on March 39, 2021.

** The total unique participant count (identified using the field *Premise Account Number*) does not match the sum of the participants for the individual measure categories due to some customers completing measures across multiple strata.

The Tetra Tech team's impact evaluation of Iowa projects resulted in an overall realization rate for electric measures of 93.5 percent for energy and 94.6 percent for demand. The decrease in savings was primarily due to adjustments for equipment hours of operation and equipment setpoint updates resulting from information gathered during site visits. The overall realization rate for therms and peak therms savings each was 100.6 percent. The primary driver of the realization rate difference was a scheduling adjustment for equipment hours of operation resulting from a site visit.

Table 5. PY2020 Program Tracked and Evaluated Impacts* - Iowa

Measure Category	Tracked (kWh)**	Evaluated (kWh)	kWh Realization Rate
Lighting/Sensors	13,172,887	12,800,675	97.2%
Process Improvement	1,585,080	1,585,080	100.0%
Other	772,946	136,417	17.6%
Compressed Air System	597,735	597,735	100.0%
Process Heating/Cooling	497,124	497,124	100.0%
HVAC	473,888	363,635	76.7%
All Projects	**17,099,660**	**15,980,666**	**93.5%**
Measure Category	**Tracked (Peak kW)****	**Evaluated (Peak kW)**	**Peak kW Realization Rate**
Lighting/Sensors	1,798	1,799	100.1%
Process Improvement	188	188	100.0%
Other	159	28	17.6%
Compressed Air System	93	93	100.0%
Process Heating/Cooling	36	36	100.0%
HVAC	128	127	100.0%
All Projects	**2,402**	**2,272**	**94.6%**
Measure Category	**Tracked (Therms)****	**Evaluated (Therms)**	**Therms Realization Rate**
HVAC	19,423	19,423	100.0%
Other	6,016	6,188	102.9%
Process Improvement	5,688	5,688	100.0%
Process Heating/Cooling	-2,550	-2,550	100.0%
All Projects	**28,577**	**28,749**	**100.6%**
Measure Category	**Tracked (Peak Therms)****	**Evaluated (Peak Therms)**	**Peak Therms Realization Rate**
HVAC	81	81	100.0%
Other	17	17	102.9%
Process Improvement	13	13	100.0%
Process Heating/Cooling	-33	-33	100.0%
All Projects	**78**	**78**	**100.6%**

* Numbers in the table are rounded—savings values are rounded to the nearest whole number and the realization rate is rounded to the nearest tenth of a percent. As a result, numbers may not calculate exactly in the table.

** Tracked savings shown are from tracking data received from MidAmerican on March 29, 2021.

3.1.1 Illinois

For Illinois in PY2020, the Nonresidential Energy Solutions program had 16 unique participants who completed 16 projects. From this population of participants, the Tetra Tech team selected a sample of five projects for desk reviews. The completed measures were classified by fuel source and technology strata, as shown in the table below ("Measure Category"). The sample was then allocated among this strata based on the individual stratum savings and the expected uncertainty for each track and technology listed. Within each of the strata below, measures were selected randomly.

Table 6. Engineering Desk Reviews Sample by Category - Illinois**

Measure Category	Measure Count	Unique Participant Count**	Total Gross Savings (kWh)	Sampled Electric Measures	Total Gross Savings (Therms)	Sampled Gas Measures
Lighting/Sensors	13	13	3,293,936	3	0	0
Ventilation	1	1	104,401	1	0	0
Compressed Air Systems	1	1	29,392	0	0	0
Process Heating/Cooling	1	1	0	0	19,530	1
Total	**16**	**16**	**3,427,729**	**4**	**19,530**	**1**

* Numbers reflected in this table are from tracking data received from MidAmerican on March 29, 2021.

** The total unique participant count (identified using the field *Premise Account Number*) does not match the sum of the participants for the individual measure categories due to some customers completing measures across multiple strata.

The Tetra Tech team's impact evaluation resulted in no savings adjustments for any Illinois projects. As a result, the overall realization rate was 100.0 percent for energy and 100.0 percent for demand. The overall realization rate for therms and peak therms savings were also 100.0 percent.

Table 7. PY2020 Program Tracked and Evaluated Impacts* - Illinois

Measure Category	Tracked (kWh)**	Evaluated (kWh)	kWh Realization Rate
Lighting/Sensors	3,293,936	3,293,936	100.0%
Ventilation	104,401	104,401	100.0%
Compressed Air Systems	29,392	29,392	100.0%
All Projects	**3,427,729**	**3,427,729**	**100.0%**
Measure Category	**Tracked (Peak kW)****	**Evaluated (Peak kW)**	**Peak kW Realization Rate**
Lighting/Sensors	429	429	100.0%
Compressed Air Systems	7	7	100.0%
All Projects	**435**	**435**	**100.0%**
Measure Category	**Tracked (Therms)****	**Evaluated (Therms)**	**Therms Realization Rate**
Process Heating/Cooling	19,530	19,530	100.0%
All Projects	**19,530**	**19,530**	**100.0%**

Measure Category	Tracked (Peak Therms)**	Evaluated (Peak Therms)	Peak Therms Realization Rate
Process Heating/Cooling	38	38	100.0%
All Projects	**38**	**38**	**100.0%**

* Numbers in the table are rounded—savings values are rounded to the nearest whole number and the realization rate is rounded to the nearest tenth of a percent. As a result, numbers may not calculate exactly in the table.

** Tracked savings shown are from tracking data received from MidAmerican on March 29, 2021.

3.2 PROJECT LEVEL TRACKING DATA AND DOCUMENTATION

The engineering analysis included a documentation review of the Nonresidential Energy Solutions program population data queried from MidAmerican's VisionDSM database. The Nonresidential Energy Solutions program tracking data was provided at the measure level. The type of data that was captured and reviewed by the Tetra Tech team is further described below.

VisionDSM data that was key to the evaluation effort included:

- Customer information (e.g., address, site contact information)
- Project level energy savings by fuel type
- Project number
- Equipment model number (to crosscheck with application)
- Equipment size and efficiency information (to crosscheck with application)
- Dates (e.g., install date, paid date, other date).

Key project documentation captured and reviewed for each sampled project included (to the extent available):

- Monitoring and verification (M&V) plans and results
- Key input assumptions (KIA) tables
- Equipment specifications
- Project technical review workbooks (including results of calculations, assumptions, and monitored data)
- Utility usage data

The Tetra Tech team reviewed the project documentation to confirm equipment specifications, installed quantities, and calculation methodology. All information was reviewed, and data sources were cross-checked for consistency. Customer information, equipment model numbers, capacities, and efficiencies recorded on the key input assumptions tables were compared to the supporting equipment specifications provided. Where equipment specifications were not provided with the project documents, the Tetra Tech team gathered this information through research based on the model number provided or during site visits.

In addition, the Tetra Tech team reviewed the individual files for the sampled projects to assess the appropriateness of the information collected to support program quality assurance and quality control (QA/QC) and the impact evaluation activities. The information collected for the individual projects included KIA tables, equipment specifications, technical review summaries, and M&V plans and results.

Because DPA projects were all custom in nature, no savings adjustments were made based on the Tetra Tech team's review of the tracking database. During our review of project documentation, the Tetra Tech team noted that some custom projects did not include an M&V plan and results. In discussing with Nexant, the Tetra Tech team learned that Nexant verifies projects with rebates $20,000 or greater, electrical savings of 250,000 kWh or greater, and/ or natural gas savings of 15,000 therms or greater. This verification process is reasonable, particularly given limited program budgets and administrative cost caps. Additionally, including an M&V plan and results for prioritized projects is an industry standard best practice for custom projects, allowing for a more streamlined QA/QC process.

3.3 ENGINEERING DESK REVIEWS

In addition to the documentation review, the Tetra Tech team completed an engineering review for each sampled project. This review included a recalculation of the savings for each measure included in the project. For eight of the sampled desk review projects, the installation and operation characteristics of the installed equipment were verified through a site visit.

For two of the sampled projects, the Tetra Tech team's analysis included recalculating the savings using the Iowa TRM V4. For custom projects, an evaluated savings estimate was developed from the KIA tables, equipment specifications, performance curves, and monitored data and compared to the tracked savings results. The Tetra Tech team identified the savings adjustments for these projects, which are described below. Detailed project-specific adjustments can be found in Appendix A of this document.

- **Hours of operation.** Three projects had savings gaps for the building or equipment hours of operation resulting from site visits. In the case of one project, the schedule adjustment was minor, and for the two other projects, the schedule changes were for building operational differences over the first year since project completion. The net result of these adjustments was a reduction in kWh and kW savings and a small increase in therms and peak therms savings.
- **Setpoint adjustment.** For one project, the customer changed the suction temperature setpoint after project completion, negating most of the savings. This customer experienced system stability issues during peak summer conditions, and to ensure the system met their process needs, changed the setpoints most of the way back to the baseline. This customer had an interest in installing an automated control system that would realize much of these lost savings, In discussing this project with MidAmerican and Nexant, Nexant noted they would follow up with this customer to further pursue the automatic control opportunity.
- **DLC input wattage adjustments.** Two projects had adjustments to the input wattages for fixtures resulting from secondary research. In discussions with Nexant, the Tetra Tech team learned that the primary source of input wattages for calculations is DLC input wattages, and the secondary source is equivalent testing documents, such as LM-79 reports[12]. The tracked savings appeared to use input wattages from product specifications. For the evaluated savings where a DLC input wattage was listed, that was used instead. These adjustments had a minor effect to project savings.

[12] For a description of an LM-79 report, see: https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/understanding_lm79_reports.pdf

4.0 NET IMPACT EVALUATION

In addition to estimating evaluated gross savings, the Illinois Commerce Commission (ICC) requires MidAmerican to provide evaluated savings estimates with NTG adjustments. The Iowa Utility Board (IUB) has encouraged using NTG estimates for informational and program design purposes. To meet these requirements, the Tetra Tech team conducted secondary research to recommend a program-level NTG ratio that would be appropriate to apply to MidAmerican's Nonresidential Energy Solutions program evaluated savings.

4.1 ESTIMATION PROCESS

The Tetra Tech team reviewed multiple sources of publicly available information for other comparable custom programs in the Midwest in order to determine a stipulated NTG ratio. As outlined in the table below, the NTG ratio for the programs researched ranged from 69 to 89 percent.

In the last evaluation cycle, the Tetra Tech team conducted primary NTG research, which resulted in a NTG recommendation of 83 percent. Because the recommended NTG ratio fits in the range of NTG ratios utilized by other comparable custom programs in the Midwest, the Tetra Tech team recommends that MidAmerican continue using a NTG ratio of 83 percent for the Nonresidential Energy Solutions program in Illinois.

Table 8. Comparable Midwest Nonresidential Energy Solutions Programs

State	Utility	Program	NTG Value	Study Year	Data Source Type
Illinois	Ameren	Business Program	82.2%	2020	Primary
Illinois	Commonwealth Edison	Custom Incentives	70%	2020	Primary
Illinois	Nicor Gas	Business and Public Sector Custom Incentive Program	79%	2019	Primary
Illinois	People's Gas & North Shore Gas	Business Program - Custom Rebates	69%	2018-2021	Primary
Indiana	Indianapolis Power & Light (now AES Indiana)	Custom Program	86%	2018	Primary
Indiana	Northern Indiana Public Service Company (NIPSCO)	Commercial & Industrial Custom Program	89%	2019	Primary
Indiana	Vectren	Commercial & Industrial Custom Program	85%	2018	Primary
Indiana	Vectren	C&I Custom Program	85%	2018	Primary

5.0 PROCESS EVALUATION FINDINGS

This section presents the findings from the Nonresidential Energy Solutions program's process evaluation activities for the PY2020 in Iowa and Illinois. The process evaluation was designed around the key researchable questions identified in the methodology section **Error! Reference source not found.**. Process evaluation activities involved interviews with program and implementation staff (including Energy Managers), participating customers, participating trade allies, and nonparticipating customers. The key process-related findings are detailed in the subsections below.

The participating customer survey was used to understand the perspectives of program participants; questions explored consumers' awareness, reasons for participation, program experiences, and satisfaction with the Nonresidential Energy Solutions program. The participating trade ally interviews investigated trade ally awareness, experiences, and satisfaction with the program. In addition, training, education, and outreach[13] were further explored with trade allies, as well as the program's impact on increasing the interest and demand for energy-efficient equipment.

5.1 INTERVIEWED PARTICIPANT AND MARKET ACTOR CHARACTERISTICS

The Tetra Tech team interviewed 16 participating customers in Iowa, one participating customer in Illinois, and one participating customer in both territories (representing a total of 45 projects). Eight participating trade allies were also interviewed to support the process evaluation. In addition, the Tetra Tech team conducted a nonparticipant survey with 165 customers to support all Iowa nonresidential program evaluations[14].

5.1.1 Participant Characteristics

MidAmerican provided the Tetra Tech team with the Nonresidential Energy Solutions program participant tracking data on March 29, 2021[15], for the period from January 1, 2020, to December 31, 2020. The program tracking data included project number, entity name and address, premise state, measure description, electric and gas savings, and rebate amount for each project. For evaluation purposes, PY2020 DPA program component participants selected for sampling include those who had equipment installed between January 1, 2020, and December 31, 2020[16].

Across both Iowa and Illinois service territories, the DPA program component included a total of 121 unique account numbers (identified using the field *Premise Account Number*), representing 91 unique participants (identified using the field *Entity Name*). The table below summarizes the PY2020 DPA population and participants interviewed by service territory. Because the in-depth participant interviews largely focused on process-related items, the Tetra Tech team sampled at the participant level rather than the project level. This means that some of the sampled participants had multiple projects, and some only had one.

[13] Training, education, and outreach findings will be summarized as part of the Education program report.
[14] Due to the small number of completed in-depth interviews with program participants, summary information is presented as numbers. For program nonparticipants, enough surveys were completed that summary information can be presented as percentages.
[15] Filename: Nonresidential Energy Solutions_April 1, 2019 – December 31, 2020_run03292021.xlsx
[16] Date of participation was identified using the *Invoice Date* provided in the program tracking data.

Table 9. PY2020 Population and Interviewed Participants by Service Territory

Service Territory	Number of Unique Participants (Accounts)	Number of Unique Entities (Customer Names)*	Number Interviewed**
Iowa	105	76	17
Illinois	16	16	2
Total	**121**	**91**	**18**

* Participant counts do not match the total of unique participants due to some participants having projects in more than one territory.

** One interview was with a participant that was in both Iowa and Illinois service territories. As a result, that participant interview is counted for each state.

The table below summarizes the firm, energy use, and facility characteristics for interviewed participants and nonparticipants surveyed. Most of the participants interviewed represented manufacturing, retail, office, or warehouse facilities. About three-quarters of participants interviewed own and occupy their facility and occupy one building. Conversely, the most common business activity among surveyed nonparticipants was an office. Similar to the interviewed participants, it is most common for nonparticipants to be owners of the facility where they operate.

Table 10. Firm Characteristics – Surveyed Participants and Nonparticipants

Firm Characteristics	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Business activity			
Industrial/Manufacturing	4	1	5.6%
Retail	3	0	8.8%
Office	2	0	26.9%
Warehouse or distribution center	2	0	8.1%
Restaurant	1	0	6.9%
Auto repair	1	0	6.3%
Other	1	0	6.3%
Institution/government	1	0	2.5%
College/university	1	0	1.3%
Grocery	1	0	0.6%
Hospital	0	1	0.6%
Agricultural	0	0	8.8%
Other healthcare	0	0	6.3%
Lodging	0	0	4.4%
Religious worship	0	0	2.5%
School K-12	0	0	1.9%
Public assembly	0	0	1.9%
Vacant	0	0	0.6%
Respondents (n)	**17**	**2**	**160**

Firm Characteristics	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Ownership			
Your company owns and occupies this facility	13	2	66.5%
Your company rents this facility from someone else	3	0	24.2%
Your company owns this facility but it is rented to someone else	1	0	9.3%
Respondents (n)	**17**	**2**	**161**

Source: Question FIRM1, FIRM2 (Participant and Nonparticipant Survey)
Don't know and refused responses are excluded.

As shown in the table below, the majority of participants interviewed indicated that their firm occupies a surface area over 50,000 square feet, which is smaller compared to the responses from nonparticipants, where two-thirds estimated the square footage of the space that is cooled or heated to be under 10,000 square feet.

The responses also varied between participants and nonparticipants regarding the age of building and number of employees: about three-quarters of the participants reported that the age of their newest building is 30 years or more, compared to half among nonparticipants; and only one Iowa participant had less than ten employees, compared to 61 percent among nonparticipants (5 Iowa and both Illinois participants interviewed indicated having more than 250 employees).

Table 11. Facility Characteristics – Surveyed Participants and Nonparticipants

Facility Characteristics	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Size of facility			
Under 5,000 sq. ft.	1	0	43.5%
5,000 to just under 10,000 sq. ft.	3	0	25.2%
10,000 to just under 25,000 sq. ft.	2	0	16.3%
25,000 to just under 50,000 sq. ft.	0	0	5.4%
50,000 sq. ft. or more	10	2	9.5%
Respondents (n)	**16**	**2**	**147**
Age of (newest) building			
Less than 2 years	1	0	4.7%
2 to 4 years	0	0	5.4%
5 to 9 years	0	0	6.1%
10 to 19 years	0	0	17.6%
20 to 29 years	2	1	15.5%
30 years or more	11	1	50.7%
Respondents (n)	**14**	**2**	**148**

Facility Characteristics	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Number of employees			
Less than 10	1	0	60.8%
10 to 49	4	0	26.6%
50 to 99	3	0	6.3%
100 to 249	2	0	3.8%
250 to 499	1	1	2.5%
500 or more	4	1	0.0%
Respondents (n)	**15**	**2**	**158**

Source: Question FIRM5, FIRM8, FIRM9 (Participant Survey)
Don't know and refused responses are excluded.

Nonparticipants were asked additional questions related to their facility[17]; responses are included in the table below. Most nonparticipants surveyed indicated that their firm occupies one building, they only have one location, they have been occupying the building for over 20 years, and they operate all year around.

Table 12. Facility Characteristics – Surveyed Nonparticipants

Facility Characteristics	Percent of Nonparticipants
Buildings occupied by firm	
1 building	64.6%
2 to 5 buildings	26.1%
6 to 10 buildings	6.2%
11 to 20 buildings	2.5%
21 to 50 buildings	0.6%
Over 50 buildings	0.0%
Respondents (n)	**161**
Facility description	
Your company's only location	52.5%
The headquarter location of your company with several locations	17.1%
One of several locations owned by your company	30.4%
Respondents (n)	**158**

[17] Participants were asked questions about their program experiences; to try to manage survey length, not all questions asked of nonparticipants were asked of participants.

Facility Characteristics	Percent of Nonparticipants
Time business has occupied location	
Less than a year	5.8%
1 through 5 years	17.4%
6 through 10 years	12.9%
11 through 20 years	16.1%
More than 20 years	47.7%
Respondents (n)	**155**
Operate facility depending on season or production cycle	
Yes	30.0%
No	70.0%
Respondents (n)	**160**

Source: Question FIRM6, FIRM7, FIRM10, FIRM12 (Nonparticipant Survey)
Don't know and refused responses are excluded.

Nonparticipants were also asked additional questions regarding their energy use. About two-thirds of surveyed nonparticipants indicated that they use a furnace for heating. The majority use natural gas as the main fuel for heating, and about half have a “residential-style” air conditioner in their facility.

Table 13. Energy Use Characteristics – Surveyed Nonparticipants

Energy Use Characteristics	Percent of Nonparticipants
Equipment used for heating	
Furnace	66.0%
Rooftop unit	14.7%
Steam Boiler	9.6%
Infrared heaters/tube heaters	6.4%
Heat pump	5.8%
Conventional hot water boiler	5.1%
Electric resistance	4.5%
Other	4.5%
Space heater	3.8%
High efficiency/condensing boiler	0.6%
None	0.6%
Respondents (n)	**156**

Energy Use Characteristics	Percent of Nonparticipants
Main fuel used for heating	
Natural gas	85.3%
Electricity	11.2%
Other: (specify)	2.1%
Fuel oil	1.4%
Respondents (n)	**143**
Equipment used for cooling	
“Residential-style” air conditioner	47.8%
Rooftop unit	27.0%
None	6.9%
Other	5.0%
Commercial AC	5.0%
Heat pump	4.4%
Fans	3.8%
Water-cooled chiller	3.1%
Air-cooled chiller	1.3%
Respondents (n)	**159**

Source: Question FIRM13, FIRM14, FIRM15 (Nonparticipant Survey)
Don't know and refused responses are excluded.

5.1.2 Trade Ally Characteristics

The Tetra Tech team interviewed eight participating trade allies across MidAmerican’s Iowa and Illinois territories (six operate in both states, and two operate in Iowa only)[18]. The trade allies varied from small individual businesses that installed lighting, HVAC, controls, and insulation to larger firms that managed or completed complex projects, with the number of employees ranging from seven to 150 employees spanning across many states. Some businesses have been working with MidAmerican’s energy efficiency programs for about 10 years and others for more than 25 years. There was also a range among interviewed trade allies regarding the percentage of projects submitted through the Nonresidential Energy Solutions program in PY2020—anywhere from one project to 60 percent of all projects (with the majority falling at 10 percent or less).

5.1.3 Energy Manager Characteristics

In PY2020, three Energy Managers were involved in delivering services through the Nonresidential Energy Solutions program. The Tetra Tech team spoke with all three Energy Managers who helped

[18] Due to the small number of trade allies interviewed that operate in Iowa only, all trade ally survey results were combined to help ensure confidentiality. Additionally, the program is implemented the same way in both Iowa and Illinois.

deliver the program in both Iowa and Illinois territories. Energy Managers are Nexant employees who assist MidAmerican's customers in identifying or evaluating project improvement options and to help customers throughout the process. In PY2020, each Energy Manager worked with a different number of customers (ranging from 40 to 200 customers). The Energy Managers reported that they feel valued by the customers and have been building long-term relationships with many of them over the years. These relationships help ensure continuity in the customer experience, along with MidAmerican's KAMs.

The Energy Managers shared challenges they experienced with the program in PY2020 due to COVID-19, including the lack of face-to-face interactions. They felt the incentive levels were appropriate, especially after the increase in mid-year 2020. To support outreach and engagement with customers, the Energy Managers suggested that MidAmerican continue to consider the following, when possible, understanding MidAmerican's budget and administrative cost limits:

- Low or no cost offerings
- Technical workshops to existing and new customers to educate them about new measures and technologies
- Reduce the paperwork from the participant perspective
- Provide a summary of program updates in a format that can be easily shared electronically

5.2 PROGRAM PROCESSES

5.2.1 Program Design

5.2.1.1 Motivations for Participation

Participants interviewed were asked to provide the factors they considered when deciding whether or not to participate in the program. All participants involved in the decision process (16 Iowa and one Illinois) reported *a desire to reduce energy costs* and *payback or return on investment*s as the main decision drivers.

One of the nonparticipant survey objectives was to better understand the relative importance of different factors in business' equipment purchase decisions and barriers to implementing energy-saving actions. Both participant and nonparticipant survey respondents were asked to rate a series of factors on a scale of 1 to 4, where 1 was "not at all important" and 4 was "extremely important." Feedback from participant respondents indicated that the rebates offered through the Nonresidential Energy Solutions program work to address key barriers customers face to implementing energy-saving improvements. The nonparticipant survey asked customers to rate the importance of the same factors as participants related to what their business considers in equipment purchase (see Table 14 and Figure 2, below).

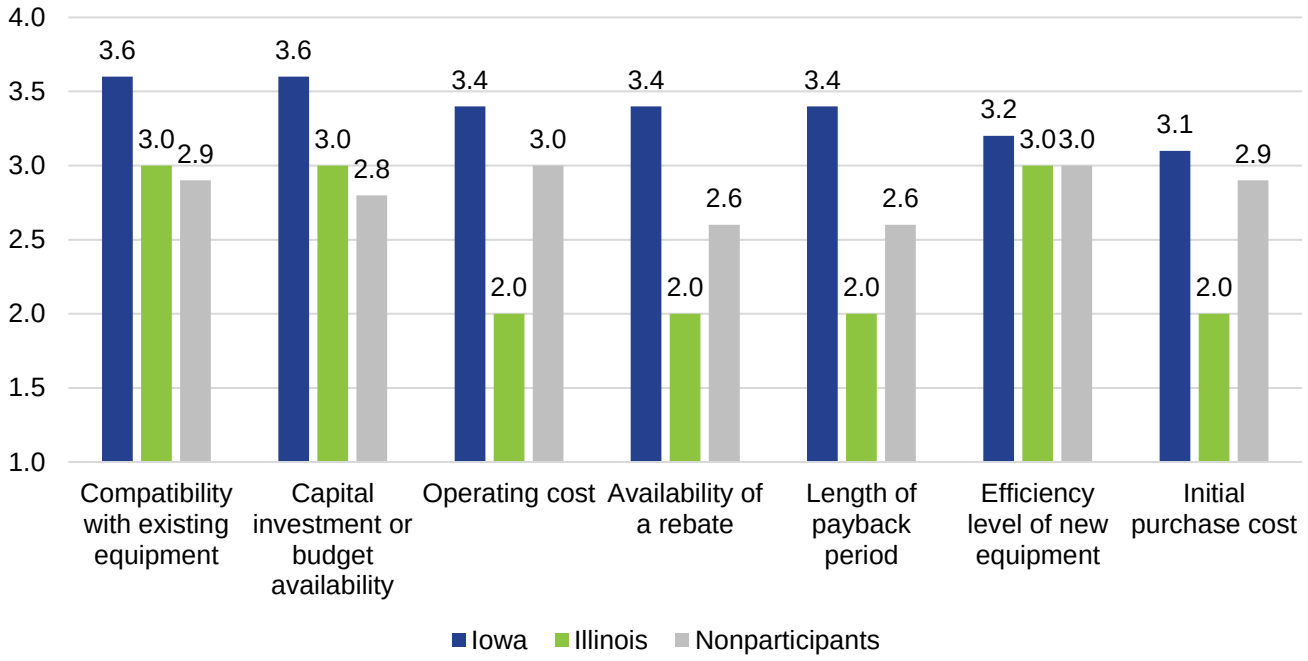
Among these factors, Iowa participants equally attributed the highest importance to *compatibility with existing equipment* and *capital investment or budget availability*. The one Illinois participant that replied to these questions put less emphasis on *operating cost*, *availability of a rebate*, *length of payback period, initial purchase cost.* Nonparticipants put less emphasis on the *availability of a rebate* and *length of payback period*.

Table 14. Importance of Different Factors When Considering an Equipment Purchase – Surveyed Participants and Nonparticipants

Factor	Iowa Participants		Illinois Participants		Nonparticipants	
	Respondents (n)	Number Rating 3 or 4	Respondents (n)	Number Rating 3 or 4	Respondents (n)	Percent Rating 3 or 4
Compatibility with existing equipment	14	12	1	1	165	75.4%
Capital investment or budget availability	14	12	1	1	160	67.6%
Operating cost	14	12	1	0	164	83.5%
Availability of a rebate	14	12	1	0	165	51.6%
Length of payback period	14	12	1	0	162	53.1%
Efficiency level of new equipment	14	11	1	1	164	81.1%
Initial purchase cost	14	10	1	0	164	70.7%

Source: Question D4 (Participant Survey) and I1 (Nonparticipant Survey)
Don't know and refused responses are excluded.

Figure 2. Importance of Different Factors When Considering an Equipment Purchase (Means) – Surveyed Participants and Nonparticipants



Valid number of responses for Iowa participants = 14; Illinois participants = 1; Nonparticipants varied from 162 – 165
Source: Questions A4 (Participant Survey) and Questions I1A-A1K (Nonparticipant Survey)
Don't know and refused responses are excluded.

5.2.1.2 Program-Specific Marketing

The top sources of program awareness among Iowa participants were *previous experience with the program or other MidAmerican programs* (five of 17) and *contractors* (five of 17). "Other" responses included previous experience in the energy efficiency sector (3 of 17) and *MidAmerican Account Managers* (two of 17). One of the Illinois participants interviewed became aware of the program through *an email from MidAmerican* and the other one through his colleagues. On the other hand, nonparticipating respondents were more likely to mention that they heard about the program from *an equipment vendor, a contractor, other businesses,* or *MidAmerican utility bill insert.*

Table 15. Source of Program Awareness – Surveyed Participants and Nonparticipants

Source	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Equipment vendor, contractor, grant writer, or other professional	5	0	11.4%
Previous experience with a MidAmerican program	5	0	4.4%
Other	4	2	5.1%
MidAmerican Key Account Manager	2	0	1.9%
MidAmerican website	1	0	3.8%
Friend/family member/other business	0	0	10.8%
MidAmerican utility bill insert	0	0	8.5%
Television	0	0	3.8%
MidAmerican call center representative	0	0	3.8%
MidAmerican brochure	0	0	2.5%
Newspaper	0	0	1.3%
Respondents (n)	**17**	**2**	**158**

Source: Question P1 (Participant Survey) and P4 (Nonparticipant Survey)
Don't know and refused responses are excluded.

Based on participant interview results, trade allies continue to play a key role in customer outreach for the Nonresidential Energy Solutions program. Most trade allies (five of eight) thought that about 50 percent of their commercial and industrial customers are generally aware of MidAmerican's available rebates before working with them. From the remaining three trade allies, only one trade ally was able to estimate a percentage for customer awareness, indicating that five percent of his customers are aware of MidAmerican rebates.

Most trade allies interviewed reported routinely discussing program rebates with MidAmerican customers and incorporating MidAmerican rebates into price estimates and comparisons.

When asked about how effective MidAmerican marketing efforts have been in making nonresidential customers aware of the program, two trade allies said, "very effective," and three were unsure. Another trade ally noted that "*most customers know them by now*." Other trade allies shared the following statements:

> "*Utility flyer would be good for small businesses.*"

> "*I am not very familiar with the marketing material, but for my customers, collaborative meetings with MidAmerican are the most fruitful*."

> "*Conferences and tradeshows provide an opportunity for MidAmerican to advertise rebates along with equipment*."

5.2.1.3 Trade Ally Outreach and Support

Six of the eight trade allies interviewed thought that the program requirements were explained clearly, and five of the eight trade allies indicated they were adequately informed of program changes. To be better informed of program changes, the trade allies suggested more email updates and direct communications. Three of the interviewed trade allies reported attending training offered by MidAmerican; all three found the training useful.

One trade ally expressed challenges connecting with MidAmerican regarding training and other support. When prompted, three trade allies provided an assessment of the assistance provided by the Energy Managers—two trade allies rated the assistance as "very helpful" and one as "somewhat helpful."

When asked about other support or types of training they would like to see offered by MidAmerican, trade allies interviewed suggested more frequent updates, an annual webinar for all trade allies as done by other utilities, monthly check-ins to discuss program changes or new opportunities, more training at the beginning of new program years, and training on motors.

5.2.2 Program Administration, Processes, and Resources

5.2.2.1 Customer Support

Depending on the type of support needed, most of the participants interviewed (12 of 17 Iowa and both Illinois) knew who to reach out to with questions (Nexant/Energy Managers or MidAmerican/Key Account Managers). Participants interviewed were asked if there is any additional support that MidAmerican could offer to assist them in their energy efficiency projects. Three participants said "yes," and provided suggestions related to helping with paperwork or providing higher incentives.

Participants were also asked to rate the technical advice and assistance provided by Nexant, using a scale of 1 to 4, where 1 was "not at all helpful" and 4 was "extremely helpful." The majority of the participants interviewed who worked closely with Nexant (11 of 13) rated the technical assistance provided to be "very to extremely helpful." Some of the participant comments included:

> *"They are very responsive. They call and take their time to provide recommendations. They keep us up-to-date."*

> *"The Energy Manager is very responsive and knowledgeable. He does everything he can to support us with the incentives."*

One of the Iowa participants that rated the assistance "somewhat helpful" noted that their Energy Manager was not able to come on-site (because of COVID-19 on-site restrictions), and therefore, was not able to provide hands-on assistance. This participant was a manufacturing facility and explained that they have complex equipment; and therefore, having the Energy Manager on-site is more helpful.

5.2.2.2 Program Administrative Requirements

The majority of participants interviewed (16 of 17 Iowa and both Illinois) reported that the program requirements were clearly explained. Eleven Iowa participants and one Illinois participant submitted the application (some of them with assistance from their trade ally). Five participants relied on their trade ally to submit the application on their behalf.

Program participants were asked to rate the ease of program enrollment, using a scale of 1 to 4, where 1 was "very difficult" and 4 was "very easy." Ten of the 11 participants involved in the enrollment process reported that enrolling their project into the program was "somewhat easy" or "very easy." One participant rated the application process as "very difficult" and explained that complex projects are more involved and require more time. One participant shared that:

> "*Nexant provided very useful and helpful assistance and that without them, the process would have been very difficult.*"

Two participants that rated the program enrollment as "very easy" added that it was a result of having experience with the program:

> *"Years ago, it was really hard, but now it is really easy, after years of practice. I have learned and talked to the contractors and engineers. It makes sense now."*

> *"I think it is just because we have some history doing these projects that the learning curve is out of the way, so I don't think it is that difficult for us."*

Most (six of eight) of the trade allies felt they had a good understanding of the rebate process and that, in many cases, they fill out the program application for their customers (four reported having dedicated teams to process applications). Six of the trade allies rated the application process; they thought enrolling projects into the program was "somewhat easy" or "very easy." Trade ally comments included:

> "*Communications are fruitful, but pre-approval can sometimes be tricky."*

> "*The data collection and form filling are self-explanatory."*

> "*The applications are straightforward*."

5.2.3 Market Response

About half of the participants interviewed (nine of 17) indicated that they have corporate policies related to energy efficiency standards or sustainability plans that they need to consider when purchasing new equipment or improving their buildings. Two other participants mentioned that they have some guidelines or follow some best practices to reduce energy costs and improve efficiency. The majority of nonparticipants surveyed (91 percent) reported that they have no energy efficiency or sustainability policies.

Four of the eight trade allies reported that their customers typically approach them in seeking energy-efficient features or involvement in the program. One trade ally indicated that some customers decide not to participate once they learn about the program because of payback and budget limitations.

When trade allies were asked about the markets or types of commercial or industrial customers, they think the program is reaching well, the responses ranged from mid-size companies to large corporations. One trade ally indicated that two of his large industrial customers have not participated in the program and expressed the need for providing higher incentives for large industrial projects.

Trade allies were also asked how much influence MidAmerican's energy efficiency programs have had on the services and equipment they offer. Five of the eight trade allies said that the program does affect their sales and recommendations practices. Some explained why:

> *"We adapt sales approach to good rebate offers."*
>
> *"When rebates are good, we are proactive about suggesting rebate programs that customers can benefit from."*
>
> *"Many of our retail customers have strict payback requirements."*
>
> *"In the event of a rebate, the project could be both funded and have return on investment. Carbon emissions credits are also part of that."*

Three of the trade allies said the program does not have much effect on their sales and recommendation practices. Two explained why:

> *"No effect compared with the competition."*
>
> *"Customers sometimes want high efficiency regardless of program availability."*

When asked to what degree they see the Nonresidential Energy Solutions program increasing the interest and demand for energy-efficient equipment, four trade allies said, "some increase," and three said "substantial increase." Most of them linked the interest to the level of incentives:

> "*It is the case especially when we are demonstrating the technology to a larger client. Rebate options can bring customer costs into the associated threshold.*"
>
> "*The best opportunities are in places with the highest rebates.*"
>
> "*The more generous the rebate structure, the more interest we get.*"
>
> "*Increased participation will only come from increased rebate levels.*"
>
> "*When rebates are high, interest is very high.*"
>
> "*Incentives, in general, are a motivator to complete projects.*"

5.2.3.1 Barriers to Installing Energy Efficient Equipment

Both surveyed participants and nonparticipants were asked what some of the major challenges are that their business faces when considering implementing energy-efficient improvements at their facility. As shown in the table below, participants interviewed most frequently mentioned *lack of budget,* followed by *time constraints of internal staff to implement*. Again, the rebates provided through the Nonresidential Energy Solutions program have been designed to help overcome these barriers. Responses categorized as "other" included: technical standards, customer comfort, and the building being fully occupied.

These responses closely matched those of the nonparticipant survey. Respondents most frequently mentioned *lack of capital budget* (39 percent), followed by *lack of awareness or knowledge about equipment* (eight percent), and *time constraints of internal staff to implement* (seven percent).

From the trade ally perspective, challenges to participation also included upfront costs, lower incentives, timing, pre-approval, and lead times.

Table 16. Challenges to Installing Energy Efficient Equipment – Surveyed Participants and Nonparticipants

Decision-making Factor	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
Lack of capital budget	4	1	44.4%
Time constraints of internal staff to implement	3	1	9.0%
Other	3	0	9.7%
Need to incorporate purchases or plans into longer term budget	2	0	5.6%
Age of the building	2	0	4.2%
Uncertainty regarding return on investment	1	0	6.9%
Cost of energy efficient equipment	1	0	0.0%
None	0	0	14.6%
Lack of awareness/knowledge about equipment characteristics or performance	0	0	9.0%
Compatibility with existing systems	0	0	5.6%
Lack of resources to implement	0	0	3.5%
Approval by decision-makers	0	0	3.5%
Lack of awareness of or knowledge about energy and money saving opportunities	0	0	2.8%
Not owning the building	0	0	2.8%
Building structure	0	0	1.4%
Contractors aren't familiar with measures	0	0	0.7%
Low prioritization of energy efficiency or conservation in firm	0	0	0.7%
Respondents (n)	**16**	**2**	**144**

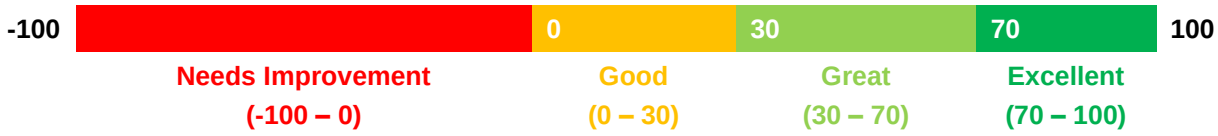
Source: Question D5 (Participant Survey) and Question DM2 (Nonparticipant Survey)
Don't know and refused responses are excluded.

5.2.4 Program Satisfaction

5.2.4.1 Net Promoter Score

A new metric being presented for MidAmerican programs in this evaluation cycle is the Net Promoter or Net Promoter Score (NPS) [19]. The NPS is calculated based on responses to a single question: How likely is it that you would recommend our company/product/service to a friend or colleague? The NPS is then the percentage of customers rating their likelihood to recommend a company, a product, or a service to a friend or colleague as 9 or 10 ("promoters") minus the percentage rating this at 6 or below ("detractors") on a scale from 0 to 10. Respondents who provide a score of 7 or 8 are referred to as "passives." The result of the calculation is expressed without the percentage sign. Promoters are considered likely to exhibit value-creating behaviors, such as buying more, remaining customers for longer, and making more positive referrals to other potential customers. Detractors are believed to be less likely to exhibit the value-creating behaviors.

Figure 3. Net Promoter Score Scale



Based on the participant survey responses, the Nonresidential Energy Solutions program in Iowa has an NPS of 63 (69 percent – 6 percent = 63) and an NPS of 100 in Illinois (100 percent – 0 percent = 100)[20].

Table 17. Iowa and Illinois NPS – Surveyed Participants

NPS Score and Category	Iowa Participants	Illinois Participants
NPS Score	**63**	**100**
Promoters (rating 9 or 10)	69	100
Passives (rating 7 or 8)	25	0
Detractors (rating 0 – 6)	6	0
Respondents	**16**	**2**

Source: SAT4 (Participant Survey)

Don't know and refused responses are excluded.

Rated on a scale of 0 to 10, where 0 was "extremely unlikely" and 10 was "extremely likely."

Trade allies were also asked how likely they are to recommend the program to a peer using the same scale. Nine trade allies rated their likelihood a 10, four rated their likelihood a 7 or 8, and one trade ally rated their likelihood a 1.

[19] NPS is a management tool used as a measure of customer satisfaction and has been shown to correlate with revenue growth relative to competitors. NPS has been widely adopted by Fortune 500 companies and other organizations. Scores vary substantially among industries, so a good score is simply one whose trend is better than that of competitors in the same industry, as measured by double-blind benchmark research. The metric was developed by (and is a registered trademark of) Fred Reichheld, Bain & Company and Satmetrix. It was introduced by Reichheld in his 2003 Harvard Business Review article, "The One Number You Need to Grow". Its popularity and broad use have been attributed to its simplicity and its openly available methodology.

[20] The Tetra Tech team notes that these percentages are based on a small number of interviewed participants in each state, and thus, there is no statistical significance associated with the percentages.

5.2.4.2 Customer Satisfaction

When asked to rate the overall experience with the Nonresidential Energy Solutions program on a scale of 1 to 4, where 1 was "not at all satisfied" and 4 was "extremely satisfied," 14 of 17 Iowa participants interviewed and both Illinois participants interviewed said they were either “extremely satisfied” or “very satisfied” with the program overall. When asked why they rated their satisfaction that way (3 or 4 on the 4-point scale), a few participants commented:

> *“I deal with many different utilities, and MidAmerican is one of the best ones I deal with. I have a close relationship with my account manager.”*
>
> *“MidAmerican is a great partner. The program helps us achieve our energy efficiency goals.”*
>
> *“We receive good support from the Energy Manager. We enjoy working with Nexant.”*

Three of the Iowa participants interviewed provided ratings of 1 or 2 on the 4-point scale for the program overall. When asked why they rated their satisfaction that way, one participant noted it was related to the service provided by the contractor, one participant said it was due to power outages they experienced, and the third participant said it was due to the rebate application process and incentive amount. The latter explained:

> “*The incentive levels do not commensurate with the implementation costs*.”

The table below outlines the participants’ overall satisfaction with the program and individual aspects of their participation experience. Iowa participants gave the highest satisfaction ratings to *the length of time it took to receive the rebate* and *the type of equipment eligible for the program*. The Illinois participants equally rated all aspects of the program as “extremely satisfied” or “very satisfied.”

Table 18. Participant Satisfaction with Different Aspects of the Program

Program Aspect	Iowa		Illinois	
	Respondents (n)	Number Rating 3 or 4	Respondents (n)	Number Rating 3 or 4
The program overall	**17**	**14**	**2**	**2**
The length of time to receive the rebate	16	16	2	2
The type of equipment eligible for the program	15	15	2	2
The contractor who installed the equipment	16	15	2	2
The amount of the incentive received	16	15	2	2
The rebate application process	15	14	2	2

Source: Question SAT1, SAT3 (Participant Survey)
Don't know and refused responses are excluded.

At the end of each interview, each participant was asked if they had any additional recommendations for MidAmerican regarding the program design and operations. Many respondents said “nothing” and expressed satisfaction with the program. Five respondents offered suggestions not related to the program incentives including:

> *“More lead time with the approval would be helpful. Sometimes the pre-approval expires before we receive the equipment.”*

"Information about future rebate availability is hard to come by. More information would be helpful."

"A little more advertisement through the account managers."

"I recommend that Nexant would partner with experts to provide best practices and design improvements for pumping systems, hydraulic, pneumatics, refrigerants, chilled water systems, or provide additional resources."

"Keep requirements and limitations transparent as possible."

The nonparticipant levels of satisfaction are comparable to responses from the participants. Nonparticipant survey respondents were asked about their satisfaction with the services provided by MidAmerican using the same 1 to 4 scale, where 1 was "not at all satisfied" and 4 was "extremely satisfied." Eighty-eight percent of respondents said they were either "extremely satisfied" or "very satisfied."

Table 19. Nonparticipant Satisfaction with Service Provided by MidAmerican

Satisfaction Level	Percent of Nonparticipants
Extremely satisfied	26.2%
Very satisfied	61.6%
Somewhat satisfied	11.0%
Not at all satisfied	1.2%
Respondents (n)	**164**

Source: Question SAT1 (Nonparticipant Survey)
Don't know and refused responses are excluded

5.2.4.3 Trade Ally Satisfaction

Trade allies interviewed expressed high satisfaction with the program overall. The majority provided ratings of 3 or 4 on a 4-point scale, where 1 was "not at all satisfied" and 4 was "extremely satisfied." Two trade allies rated their program satisfaction as "somewhat satisfied." When asked about reasons for the lower rating, one mentioned the lack of strict fixture categories and added that "*a direct linear ambient luminaire category is necessary*." Satisfaction with Nexant's services was slightly lower but still in the "very satisfied" range (three trade allies provided a rating for this aspect of the program).

The majority of trade allies interviewed reported that they would highly recommend the program. When asked how likely they are to recommend the program to a friend or colleague on a scale of 0 to 10, where 0 was "extremely unlikely" and 10 was "extremely likely," all the trade allies that replied to this question (six) provided a score of eight or higher.

Table 20. Trade ally Satisfaction

	Number of Trade Allies	Mean Rating
The program overall	7	3.0
The services provided by Nexant and the Energy Managers	3	2.7

Source: Question 19, 20 (Trade Ally Interview Guide)
Don't know and refused responses are excluded.

5.2.5 Future Plans and COVID-19 Effects

Nonparticipants surveyed in September 2020 were asked to indicate how likely they were to take various actions over the next six months. As highlighted in the table below, at that time, a high proportion of nonparticipating survey respondents were “not at all likely” or “somewhat likely” to purchase new energy-efficient equipment for their business or look for additional ways to save energy that are low cost or no cost. Nonparticipants were, however, likely to allow a contractor into their business to service existing equipment.

Table 21. Nonparticipant Business Actions Likelihood in the Next 6 Months

Business Actions		Percent of Nonparticipants
Purchase new energy efficient equipment for your business	Extremely likely	4.8%
	Very likely	12.7%
	Somewhat likely	31.5%
	Not at all likely	50.9%
	Respondents (n)	**165**
Allow a contractor into your business to service existing equipment	Extremely likely	16.5%
	Very likely	39.6%
	Somewhat likely	21.3%
	Not at all likely	22.6%
	Respondents (n)	**164**
Look for additional ways to save energy at your business that are low cost or no cost	Extremely likely	8.6%
	Very likely	25.3%
	Somewhat likely	41.4%
	Not at all likely	24.7%
	Respondents (n)	**162**

Source: Question C10A-C10C (Nonparticipant Survey)
Don't know and refused responses are excluded.

When participants were asked similar questions in August 2021 (likelihood of taking various actions over the next six to 12 months), they reported they were more likely to do the four listed actions. This could be a reflection of the market recovering to some degree from COVID-19 and/or that these are program participants who have already shown a propensity to take these actions over nonparticipants.

Table 22. Participant Business Actions Likelihood in the Next 6 Months to 12 Months

Business Actions		Number of Iowa Participants	Number of Illinois Participants
Purchase new energy efficient equipment for your business	Extremely likely	11	1
	Very likely	2	1
	Somewhat likely	1	0
	Not at all likely	2	0
	Respondents (n)	**16**	**2**

Business Actions		Number of Iowa Participants	Number of Illinois Participants
Look for additional ways to save energy at your business that are low cost or no cost	Extremely likely	13	1
	Very likely	0	0
	Somewhat likely	2	0
	Not at all likely	1	1
	Respondents (n)	**16**	**2**
Undertake a renovation project at your business	Extremely likely	9	1
	Very likely	2	1
	Somewhat likely	2	0
	Not at all likely	4	0
	Respondents (n)	**17**	**2**
Start a new construction project at your business	Extremely likely	9	1
	Very likely	0	0
	Somewhat likely	2	0
	Not at all likely	6	1
	Respondents (n)	**17**	**2**

Source: Question D6A-D6D (Participant Survey)
Don't know and refused responses are excluded.

Participants and nonparticipants were then asked whether COVID-19 influenced their responses to the actions presented in the previous table. As shown in the table below, more than 70 percent of surveyed nonparticipants and about half of the participants interviewed said that COVID-19 did not influence their answers.

Table 23. Influence of COVID-19 on Business Actions

Were Actions Influenced	Number of Iowa Participants	Number of Illinois Participants	Percent of Nonparticipants
No	9	1	72.1%
Yes	8	1	27.9%
Respondents (n)	**17**	**2**	**165**

Source: Question C12 (Participant Survey), C11 (Nonparticipant Survey)
Don't know and refused responses are excluded.

Interviewed Iowa participants who were influenced by COVID-19 described the impact on their business as follows:

> "*Funds are short from lack of customers in the last year and not sure what business will do in the next round."*

> "*The pandemic forced us to close our locations or reduce our operating hours. We could not get the vendors inside. We worked well through it, but we were not operationally normal. Now we are delayed by the Delta variant. We are not back yet*."

> "*We slowed down our contract labor, and some projects got delayed, although we were classified as an essential business."*
>
> "*We experienced delays in the supply chain.*"

Similar to the participants, trade allies reported delays as a result of the COVID-19 pandemic. All trade allies noted delays in receiving equipment and other materials, four of them reported delays in customer projects, and three indicated that customer projects were canceled. Looking forward, trade allies had mixed feelings about COVID19 impacts over the next six months; a few thought things might start getting better, but a few others thought that things might stay the same or get worse.

APPENDIX A: PROJECT REVIEW RESULTS

As noted earlier, the PY2020 Nonresidential Energy Solutions program impact evaluation activities included an engineering analysis for a sample of 23 projects, with eight projects subsequently receiving site visits. The Tetra Tech team conducted savings analysis for all of the desk reviews, and data gathered during the site visits complemented the desk reviews. The evaluated savings analysis resulted in five Iowa projects with defined savings adjustments for energy savings and are described in detail below. There were no savings adjustments for electric or natural gas projects for Illinois.

Table A-1. Project Level Tracked and Evaluated Gross Energy Savings - Iowa

Project ID	Electric Savings (kWh)		Demand Savings (Peak kW)		Gas Savings (Therms)		Gas Savings (Peak Therms)		Realization Rate			
	Tracked	Evaluated	Tracked	Evaluated	Tracked	Evaluated	Tracked	Evaluated	kWh	kW	Therms	Peak Therms
21002	342,298	347,395	39	40	-	-	-	-	101%	101%		
21003	91,662	70,336	74	74	-	-	-	-	77%	100%		
21009	917,673	761,635	115	115	-	-	-	-	83%	100%		
21013	-	-	-	-	6,017	6,189	17	17			103%	103%
21018	532,878	94,047	60	11	-	-	-	-	18%	18%		

Electric Project Adjustments - Iowa

- Project ID 21002: This project included custom lighting measures. The project had four LED fixture types where the DLC listed wattage differed from the wattage used for the tracked savings. This increased the savings by one percent.
- Project ID 21003: This project included a custom chiller replacement. The tracked savings analysis used building operating hours for weekdays (4am to 10pm) that did not match the building occupied hours from the Tetra Tech team site visit (6 am to 6 pm). The evaluated savings assumed the chiller operates for one hour before and after the occupied period, which resulted in reduced operational hours. This reduced the kWh savings by 23 percent.
- Project ID 21009: This project included custom lighting measures. The project had four LED fixture types where the DLC listed wattage differed from the wattage used for the tracked savings. The Tetra Tech team conducted a site visit at this facility and found half of the installed fixtures operated from 3am to 9:30pm on Monday-Saturday and 5am to 8:30pm on Sunday, resulting in an estimated 6,578 hours of annual operation. The tracked savings had these fixtures operating 24 hours per day, 365 days per year, for a total 8,760 hours of operation. These adjustments reduced kWh savings by 17 percent.
- Project ID 21018: This project included custom other measures, including an increased refrigeration suction temperature setpoint. During the site visit, the suction pressure temperature was found to be decreased back from 32 psig to 25 psig setpoint on the screw compressors and 28 psig on the reciprocating compressors. The customer changed the suction pressure setpoints because the chiller was not able to meet the demand of the process during the hot summer months and had no interest in reverting the setpoints without an automated control system. This decreased the kWh and kW savings by 82 percent.

Natural Gas Project Adjustments - Iowa

- Project ID 21013: This project included a custom other measure for the installation of an automatic freezer/refrigerator door system. The Tetra Tech team site visit found the facility operated from 6am through 1am compared to the tracked savings, which used a schedule of 7am to 1am. This schedule adjustment increased therms and peak therms savings by three percent.

APPENDIX B: PARTICIPANT SURVEY

MIDAMERICAN ENERGY
NONRESIDENTIAL ENERGY SOLUTIONS - DIRECT PROJECT ASSISTANCE OFFERING
PARTICIPANT INTERVIEW GUIDE

ID Number:

Interviewee(s):

Company Name:

Interviewer(s):

Date:

Background

This guide will be used to understand the perspectives of program participants in MidAmerican's Nonresidential Energy Solutions program for Illinois and Iowa in PY2020. For purposes of these interviews, participants are considered end users, not specific projects. As outlined in the Detailed Evaluation Plan (DEP), the interviews will be **targeting Direct Project Assistance (DPA) participants only**. Questions included in this guide are reflective of the researchable questions identified in the DEP. In-depth interviews will be conducted by senior Tetra Tech staff via telephone. The interviews will be partially semi-structured. This means that some of the questions in this interview protocol are only a guide to ensure certain topics are covered, but evaluators will follow the flow of the interview and modify questions as needed to fit the interviewee's circumstance and flow of conversation. Other questions have been designed to be specifically followed to ensure consistency of information or to align with information being captured across other nonresidential programs (these are identified with an underlined question variable name).
We expect the interviews to take about 30 minutes. We will attempt to schedule interviews with respondents in advance to accommodate each participant's schedule.

Introduction

Hello, my name is _____. I work for Tetra Tech, and I'm calling on behalf of MidAmerican Energy regarding your participation in their Nonresidential Energy Solutions program.

As a reminder, we would like to ask you some questions about your participation in the program in 2020 to help provide insight back to MidAmerican about program experiences, what has been working well, and what recommendations you may have to improve the program. All of your responses will be kept confidential. Our records show you installed [LIST INSTALLED EQUIPMENT]. Does this sound right to you?

1 Yes – CONTINUE
2 No – What doesn't sound right?

[If needed: Offer the contact name from below as the person to contact with any questions about the validity of this research.]

Name	Phone Number
Dave McCammant	563-333-8864

With your permission, I would like to record the interview. Do I have your permission to do so? [IF NEEDED: We will use the recording to help us compile the results, in order to make sure we accurately represent your responses. No one but Tetra Tech staff will listen to the recording.]

Awareness and Decision Making

A1 To start us off, tell me about your involvement in MidAmerican Energy's Nonresidential Energy Solutions program. Specifically:

- How long did you work with program staff to discuss energy saving opportunities in relation to the project(s) you implemented in 2020?
- What was your role on the project(s) and what were you responsible for?

A3 Were you involved in the decision-making process to have your facility(s) participate in the program?

1 Yes
2 No

P1 How did you FIRST learn about the program? *[DO NOT READ; SELECT ONE]*

For P1C01 to P1C88
0 Not mentioned
1 Mentioned

P1C01 _____ MidAmerican Key Account Manager
P1C02 _____ MidAmerican utility bill insert
P1C03 _____ MidAmerican website
P1C04 _____ MidAmerican brochure
P1C05 _____ MidAmerican call center representative
P1C06 _____ Retail store
P1C07 _____ Equipment vendor, contractor, grant writer, or other professional
P1C08 _____ Newspaper
P1C09 _____ Radio
P1C10 _____ Television
P1C11 _____ Billboard
P1C12 _____ Friend/family member/other business
P1C13 _____ Energy advisor, energy engineer
P1C14 _____ Previous experience with a MidAmerican program
P1C15 _____ Other (specify)
P1C88 _____ Don't know/don't remember

D1 *[ASK IF A3 = 1]* When deciding whether or not to participate in the program, did you consider any of the following factors? Did you consider…*[READ LIST; SELECT ALL THAT APPLY]*

For D1a to D1e
01 Yes
02 No
88 Don't know
99 Refused

D1a The payback or return on investment?
D1b The age or poor condition of the equipment replaced?
D1c A need to expand capacity?
D1d A desire to reduce energy costs?
D1e Anything else? *[SPECIFY]*

D2 Does your company have any corporate policies related to energy efficiency standards or sustainability plans that you need to consider when purchasing new equipment or making improvements to this facility?

1	Yes	
2	No	[SKIP TO D4]
8	Don't know	[SKIP TO D4]
9	Refused	[SKIP TO D4]

D3 *[ASK IF D2 = 1]* Which of the following best describes this/ these policy? *[READ LIST, SELECT ONE]*

01 We purchase energy efficient equipment regardless of cost
02 We purchase energy efficient equipment if it meets payback or return on investment criteria
03 We purchase standard efficiency equipment that meets code
04 Or something else *[SPECIFY]*
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

D4 *[ASK IF D2 = 1]* How important are each of the following to your company when considering new energy-using equipment? Please respond with not at all important, somewhat important, very important, or extremely important. How important is… *[READ LIST]*

For D4a to D4g
01 Not at all important
02 Somewhat important
03 Very important
04 Extremely important
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

D4a _____ The availability of a rebate?
D4b _____ The compatibility with existing equipment?
D4c _____ The initial purchase cost?
D4d _____ The operating cost?
D4e _____ The length of the payback period?
D4f _____ The efficiency level of the new equipment?
D4g _____ The capital investment or budget availability?

D5 What are some of the major obstacles that your business faces when considering implementing energy efficiency improvements at your facility? *[DO NOT READ; SELECT ALL THAT APPLY]*
For D8C01 to D8C99

0 Not mentioned
1 Mentioned

D5C01 Need to incorporate purchases or plans into longer term budget
D5C02 Lack of capital budget
D5C03 Time constraints of internal staff to implement
D5C04 Lack of resources to implement
D5C05 Approval by decision-makers
D5C06 Uncertainty regarding return on investment
D5C07 Contractor**s** aren't familiar with measures
D5C08 Lack of awareness of or knowledge about energy and money saving opportunities
D5C09 Lack of awareness/knowledge about equipment characteristics or performance
D5C10 Lack of knowledge about how to obtain assistance from MidAmerican
D5C11 Low prioritization of energy efficiency or conservation in firm
D5C12 Age of building
D5C13 Building is leased / rented
D5C14 Cost of equipment
D5C15 Other [SPECIFY]
D5C77 No obstacles
D5C88 Don't know
D5C99 Refused

D6 MidAmerican Energy understands that the COVID-19 pandemic has affected businesses in many ways. We want to understand how MidAmerican's energy efficiency programs can best serve your businesses' needs during this time.

Thinking about your business over **the next six to 12 months**, are you not at all likely, somewhat likely, very likely, or extremely likely to do the following? How likely are you… *[SELECT ONE]*

For D6A to D6D
01 Not at all likely
02 Somewhat likely
03 Very likely
04 Extremely likely
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

D6A _____ To make energy efficiency improvements at your business?
D6B _____ To look for additional ways to save energy in your business that are low cost or no cost?
D6C _____ To undertake a renovation project at your business?
D6D _____ To start a new construction project at your business?

C12 Thinking about the last four statements that I read to you, did the COVID-19 pandemic influence any of your responses? *[SELECT ONE]*

01 Yes
02 No
88 Don't know

C13 *[ASK IF C12 = 1]* How did it influence your responses? *[RECORD VERBATIM]*

Interactions with the Program

I1 The program implementer, Nexant, works with MidAmerican Energy to deliver the Nonresidential Energy Solutions program. Which of the following services or benefits did you receive through the program? *[INTERVIEWER, READ EACH SERVICE WITH DESCRIPTION AND RECORD YES OR NO FOR EACH]*

01 Yes
02 No
88 Don't know

I1A _____ **Consultation** which provides flexible, timely analysis to assist in the decision-making process and quick, first-order analysis/estimates.
I1B _____ **Engineering support** which is designed to take a comprehensive look at project-specific equipment and processes within a facility and provide a cost-effective, energy-saving recommendation.
I1C _____ **Implementation support** which provides varying levels of support depending on the customer need, project complexity, and size of a project. This support may include answering project-specific questions, assisting with developing detailed requests for proposals, reviewing vendor bids, reviewing proposals on systems that require additional detailed study, assisting with applications for a rebate, and other support.

I2 *[ONLY ASK IF A KEY ACCOUNT]* Depending on the type of support you needed, did you know who to reach out to? For example, the program Energy Manager or your MidAmerican/Key Account Manager (KAM)?

01 Yes
02 No à Why do you say that?

I3 Did you get enough support from your Energy Manager and/or MidAmerican when you needed it?

01 Yes
02 No à What support would you like to see added or expanded (and from which entity)?

I4 Was your project already planned prior to your engagement with the program?

01 Yes
02 No [SKIP TO P2]

I5 *[ASK IF I4 = 1]* Did your plans change as a result of the program?

01 Yes
02 No [SKIP TO P2]

I6 *[IF I5 = 1]* How and why did your plans change? [Probe for changes in efficiency levels, quantity, and project timing, incentive, technical support, and information from the Nexant/Energy Manager or trade ally)
[RECORD VERBATIM]

Program Procedures and Design

P2 *[ASK IF ENERGY MANAGER INDICATED IN I3]* How helpful was the assistance provided by Nexant's Energy Managers? Would you say not at all helpful, somewhat helpful, very helpful, or extremely helpful? *[SELECT ONE]*

01 Not at all helpful
02 Somewhat helpful
03 Very helpful
04 Extremely helpful
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

P2a *[SKIP IF P2 = 88 OR 99]* Why did you rate their assistance in that way? *[RECORD VERBATIM]*

Next I'd like to ask you a few questions about the application process.

P3 Were the program requirements clearly explained?

01 Yes
02 No

P4 Did you submit your own application or did your contractor submit the application for you?

01 I/ my company submitted the application
02 The contractor submitted the application
03 Other [SPECIFY]
88 Don't know

P4a *[IF P4 = 1]* How difficult or easy was it to enroll a project into the program? Would you say very easy, somewhat easy, somewhat difficult, or very difficult? *[SELECT ONE]*

01 Very easy
02 Somewhat easy
03 Somewhat difficult
04 Very difficult
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

P4b Why did you rate the application process in that way? *[RECORD VERBATIM]*

Conclusion

SAT1 Thinking about the assistance you had, and rebates you received, how satisfied are you with the Nonresidential Energy Solutions program overall? Are you not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied? *[SELECT ONE]*

01 Not at all satisfied
02 Somewhat satisfied
03 Very satisfied
04 Extremely satisfied
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

SAT2 Why did you rate your satisfaction with the program in that way?
[RECORD VERBATIM]

SAT3 How satisfied are you with the following aspects of the program? Please respond with not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied. *[READ LIST]*

For SAT3A to SAT3E
01 Not at all satisfied
02 Somewhat satisfied
03 Very satisfied
04 Extremely satisfied
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

SAT3A _____ The length of time it took to receive the rebate
SAT3B _____ The type of equipment eligible for the program
SAT3C _____ The contractor who installed the equipment
SAT3D _____ The rebate application process
SAT3E _____ The amount of incentive received through the program

SAT4 How likely are you to recommend the program to a friend or colleague? Please answer on a scale of 0 to 10, where 0 is extremely unlikely and 10 is extremely likely.

_____ [Record 0-10]

C1 If you were to recommend anything to MidAmerican regarding the program design or operations, what would it be?
[RECORD VERBATIM]

Firmographics

My final questions are about your organization and facility and will help us to compare your responses about your program experiences with those of other participants.

FIRM1 What business activity accounts for most of the floor space covered by your MidAmerican bill at <ADDRESS> in <CITY>? *[SELECT ONE]*

01 Office
02 Retail
03 Industrial/Manufacturing
04 Agricultural
05 Warehouse or distribution center
06 Grocery
07 Hospital
08 Other healthcare
09 College/university
10 Institution/government
11 Lodging
12 Restaurant
13 School K-12
14 Religious worship
15 Public assembly
16 Vacant
17 Other (specify)
88 Don't know
99 Refused

FIRM1O Other business activity defined [OTHER SPECIFY]

FIRM2 Which of the following best describes the ownership of this facility? *[READ LIST; SELECT ONE]*

01 Your company owns and occupies this facility
02 Your company owns this facility but it is rented to someone else
03 Your company rents this facility from someone else
88 *[DO NOT READ]* Don't know
99 *[DO NOT READ]* Refused

FIRM5 What's your best guess as to the size of this facility—the approximate square footage of the space that is cooled or heated. [SHOW IF FIRM4<>1: Please tell us the total for all of the buildings.] Is it…*[READ LIST UNTIL R ANSWERS; SELECT ONE]*

01 Under 5,000 sq. ft.
02 5,000 to just under 10,000 sq. ft.
03 10,000 to just under 25,000 sq. ft
04 25,000 to just under 50,000 sq. ft
05 50,000 sq. ft. or more
88 Don't know
99 Refused

FIRM8 Do you know the approximate age? Is it… *[READ LIST UNTIL R ANSWERS; SELECT ONE]*

01	Less than 2 years
02	2 to 4 years
03	5 to 9 years
04	10 to 19 years
05	20 to 29 years
06	30 or more years
88	Don't know
99	Refused

FIRM9 Approximately how many full-time and part-time employees work at this location most of the year?

_____	[RECORD NUMBER OF EMPLOYEES AS 0 TO 2000]
888	Don’t know
999	Refused

That is all the questions I have today. If you think of anything you would like to add, please feel free to contact us. And if we uncover any clarifications, would it be alright if someone followed up with you on those?

Thank you very much for your time.

APPENDIX C: NONPARTICIPANT SURVEY

MidAmerican Energy
Nonresidential Nonparticipant Survey (Commercial and Industrial)

Survey Sections:

- Sample Variables
- Introduction
- Program Awareness
- Decision-making
- Satisfaction
- Firmographics
- Conclusion

SAMPLE VARIABLES

CASEID Unique case identifier

PHONE_NUM Contact's telephone number

CONTACT_NAME Contact name listed in participant database

COMPANY Company name listed in participant database

ADDRESS Address where equipment was installed
CITY
STATE
ZIP

ACCOUNT_NUM Account number

TRF_TYPE_CD

METER_TYPE (Gas, Electric, Electric Lighting)

REP Assigned replicate

INTRODUCTION

INTRO [INTERVIEWER INSTRUCTION: Please dial the phone number [PHONE_NUM] and enter the call result.]

01	Connected	[PROCEED]
02	Did not connect	[DISPO CASE OUT]

INT01 Hello, my name is _____ calling from Tetra Tech on behalf of MidAmerican Energy. We are conducting a study about MidAmerican's energy efficiency offerings. This is not a sales call, and your responses will provide MidAmerican Energy with the opportunity to collect direct customer feedback that will inform and improve MidAmerican Energy's energy efficiency programs.

May I speak with the person who is responsible for purchasing and maintaining energy-using equipment for <COMPANY> at <ADDRESS>?

[IF CONTACT_NAME IS NOT BLANK SHOW "The name we have on record is <CONTACT_NAME>."]

01	Yes	
02	No, R not knowledgeable	[SKIP TO OTHER_R]
03	No, R is not currently available	[SCHEDULE CALLBACK]
04	Did not connect	[DISPO CASE OUT]

PREAMBLE

[IF NEEDED: I'm with Tetra Tech, an independent research firm. We are conducting a study about MidAmerican's energy efficiency offerings.

I'm not selling anything; I'd just like to ask your opinions. Let me assure you that your responses will be kept confidential and your individual responses will not be revealed to anyone unless you grant permission.]

Before we start, I would like to inform you that for quality control purposes, this call will be recorded and monitored.

01	Continue

C1 Before getting started, are you the person who is knowledgeable about the decision making process for purchasing new energy-using equipment for your company?

01	Yes	[SKIP TO S1]
02	Yes, but address is incorrect	[Specify: What is the correct address?] [SKIP TO S1]
03	The business no longer exists or functions at this address	
06	No	
-8	Don't know	
-9	Refused	[TERMINATE 91]

C1O *[ASK IF C1=2]* What is the correct address?

OTHER_R

Is there someone else at your business that would be more knowledgeable about your organization's decision making processes related to maintaining existing equipment or purchasing new energy using equipment at this location?

01	Yes	
02	No	[TERMINATE 81]
-8	Don't know	[TERMINATE 81]
-9	Refused	[TERMINATE 91]

AVAILABLE_R May I please speak with that person?

01	Yes	[SPECIFY NAME AND BEGIN THE SURVEY AGAIN WITH NEW RESPONDENT—SKIP TO INT01]
02	There is someone else, but not currently available	[SCHEDULE CALLBACK]
03	No	[TERMINATE 91]
-8	Don't know	[TERMINATE 81]
-9	Refused	[TERMINATE 91]

FAQ [THE FOLLOWING IS AVAILABLE ONLY IF NEEDED:
Who is doing this study: MidAmerican Energy has hired our firm to gather this information.

Why are you conducting this study: Studies like this help MidAmerican Energy better understand customers' need for energy efficiency programs and services.

Timing: This survey should take less than 15 minutes of your time. Is this a good time for us to speak with you? IF NOT, SET UP CALLBACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070.

Sales concern: I am not selling anything; we would simply like to hear about your experiences with MidAmerican and their programs. Your responses will be kept confidential and not revealed to anyone unless you grant permission. If you would like to talk with someone from MidAmerican Energy about this study, feel free to call the MidAmerican Energy customer experience team at 1-888-427-5632**.**

SCREENING QUESTIONS

S1 According to our records, your business has not received an energy audit or received a rebate from MidAmerican Energy for the installation of energy efficient equipment during the past two years, or 24 months.

Is that correct?

01	Yes	
02	No	[THANK AND TERMINATE 82]
-8	Don't know	[SKIP TO OTHER_R]
-9	Refused	[SKIP TO OTHER_R]

PROGRAM AWARENESS

P2 MidAmerican Energy provides incentives through their energy efficiency programs to assist customers in making energy savings improvements in their facilities.

Before today, were you aware of any incentives available from MidAmerican Energy for the installation of certain energy-efficient upgrades or equipment? [SELECT ONE]

01	Yes	
02	No	[SKIP TO P8]
-8	Don't Know	[SKIP TO P8]

P3 What services, upgrades, or equipment are you aware of that qualify for an incentive? [DO NOT READ; SELECT ALL EQUIPMENT/SERVICES MENTIONED].

For P3C01 through P3C99:

0	Not mentioned
1	Mentioned
-6	Programmed skip

P3C01	Engineering services (detailed study through Industrial Partners)
P3C02	Insulation / Shell
P3C03	Motors and Drives
P3C04	Lighting (NOT including occupancy sensors)
P3C05	HVAC (equipment and maintenance, thermostat)
P3C06	Water Heating (Water Heaters and water saving devices – aerators and showerheads)
P3C07	Appliances (kitchen appliances)
P3C08	Retrocommissioning
P3C09	Compressed air
P3C10	Process
P3C11	Controls (occupancy sensors, Energy Management System (EMS), etc.)
P3C12	Other: (specify)
P3C88	Don’t know
P3C99	Refused

P3C12O *[ASK IF P3C12=1]* What other items qualify for an incentive?

P4 How did you learn about the incentives available through MidAmerican Energy's energy efficiency programs? [DO NOT READ; SELECT ALL MENTIONED; PROBE: Any other way?]

For P4C01 through P4C99:
00 Not mentioned
01 Mentioned

P4C01 MidAmerican utility bill insert
P4C02 MidAmerican website
P4C03 MidAmerican brochure
P4C04 MidAmerican call center representative
P4C05 Previous program participation [PROBE: When, what program(s)?]
P4C06 Retail store
P4C07 Equipment vendor, contractor, grant writer, or other professional
P4C08 Conference/trade show
P4C09 Newspaper
P4C10 Radio
P4C11 Television
P4C12 Billboard
P4C13 Other business/ family member
P4C14 Key Account Manager
P4C15 Other, specify
P4C88 Don't know/don't remember [SKIP TO P6]
P4C99 Refused [SKIP TO P6]

P4C15O *[ASK IF P4C15=1]* How did you learn about the incentives?

P5 You said you received information from [IF SINGLE REPONSE IS GIVEN IN P4, FILL WITH RESPONSE; ELSE FILL WITH 'multiple sources']. Did this provide you with enough information to know how to participate in a MidAmerican energy efficiency program if you wanted to? [SELECT ONE]

01 Yes
02 No
-4 Interviewer mistake
-6 Programmed skip
-8 Don't Know
-9 Refused

P6 *[SKIP IF P4 = 02, MidAmerican website]* Have you ever visited MidAmerican Energy's website for information on energy efficiency and incentives that they offer for efficient equipment? [SELECT ONE]

01 Yes
02 No
-6 Programmed skip
-8 Don't Know
-9 Refused

P7a *[ASK IF P4 = 02, MidAmerican website OR IF P6 = 01, Yes]* How easy was it to find the information you were looking for on MidAmerican Energy's website? Was it… [READ CATEGORIES; SELECT ONE].

01	Not at all easy
02	Somewhat easy
03	Very easy
04	Extremely easy
-6	Programmed skip
-8	Don't Know
-9	Refused

P7b *[ASK IF P4 = 02, MidAmerican website OR IF P6 = 01, Yes]* How helpful was the information you found on the website? Was it not at all helpful, somewhat helpful, very helpful, or extremely helpful? [SELECT ONE]

01	Not at all helpful
02	Somewhat helpful
03	Very helpful
04	Extremely helpful
-6	Programmed skip
-8	Don't know

P8 Has your business replaced or upgraded equipment or made any other energy saving improvements over the past two years? [SELECT ONE]

01	Yes	
02	No	[SKIP TO C_P10_SKIP]
-8	Don't Know	[SKIP TO C_P10_SKIP]
-9	Refused	[SKIP TO C_P10_SKIP]

P9 What types of equipment did your business replace or upgrade in the past two years at this location? [DO NOT READ LIST; SELECT ALL THAT APPLY]

For P9C01 through P9C99:
00 Not mentioned
01 Mentioned
-6 Programmed skip

P9C01 Insulation / Shell
P9C02 Motors and Drives
P9C03 Lighting (NOT including occupancy sensors)
P9C04 HVAC (equipment and maintenance, thermostat)
P9C05 Water Heating (Water Heaters and water saving devices – aerators and showerheads)
P9C06 Appliances (kitchen appliances)
P9C07 Retrocommissioning
P9C08 Compressed air
P9C09 Process
P9C10 Controls (occupancy sensors, Energy Management System (EMS), etc.)
P9C11 Other: (specify)
P9C88 Don't know
P9C99 Refused

P9C11O *[ASK IF P9C11=1]* What other types of equipment did you replace or upgrade?

P9b *[ASK FOR EACH MENTIONED IN P9]* Was the [SHOW EQUIPMENT SELECTED IN P9] you installed high efficiency equipment or the standard equipment available in the market?

For P9b_01 to P9b_11
01 High efficiency
02 Standard efficiency
-6 Programmed skip
-8 Don't Know
-9 Refused

P9B_01 Insulation / Shell
P9B_02 Motors and Drives
P9B_03 Lighting (NOT including occupancy sensors)
P9B_04 HVAC (equipment and maintenance, thermostat)
P9B_05 Water Heating (Water Heaters and water saving devices – aerators and showerheads)
P9B_06 Appliances (kitchen appliances)
P9B_07 Retrocommissioning
P9B_08 Compressed air
P9B_09 Process
P9B_10 Controls (occupancy sensors, Energy Management System (EMS), etc.)
P9B_11 Other: (specify)

C_P10_SKIP [IF (P2 = 02 OR -8) SKIP TO P20]

P10 *[ASK IF P8 = 01]* Did you consider participating in MidAmerican's energy efficiency programs before completing the replacements or upgrades? [CHECK ONE]

01 Yes
02 No
-6 Programmed skip
-8 Don't Know
-9 Refused

P14 Have you ever considered participating in a MidAmerican energy-efficiency program? [SELECT ONE]

01 Yes
02 No
-6 Programmed skip
-8 Don't Know
-9 Refused

P15 What has kept you from considering participating in one of MidAmerican's energy-efficiency programs? [DO NOT READ; SELECT ALL MENTIONED]

For P15C01 through P15C99:
0 Not mentioned
1 Mentioned
-6 Programmed skip

P15C01 Time required to participate
P15C02 The cost – high initial cost / incentives not enough
P15C03 Possible interruptions to our business
P15C04 The internal approval process / needs higher approval
P15C05 Not sure the savings would be worth the cost
P15C06 The facility is leased
P15C07 The required paperwork
P15C08 Confusing
P15C09 Other: (specify)
P15C88 Don't know
P15C99 Refused

P15C08O *[ASK IF P15C08=1]* What did you find confusing?

P15C09O *[ASK IF P15C09=1]* What keeps you from considering participating?

P16 *[ASK IF P14 = 01, ELSE SKIP TO P20]* Was there anything that raised questions or concerns about participating in a MidAmerican program? [SELECT ONE]

01 Yes
02 No
-6 Programmed skip
-8 Don't Know
-9 Refused

P17 *[ASK IF P16 = 01]* What raised concerns? [DO NOT READ; SELECT ALL MENTIONED]

For P17C01 through P17C99:
0 Not mentioned
1 Mentioned

P17C01 Time required to participate
P17C02 Possible interruptions to our business
P17C03 Incentives not enough
P17C04 Difficulty of participating
P17C05 Hard time getting approvals or getting everyone on board
P17C06 Not sure the savings would be worth the cost
P17C07 Confusing
P17C08 Hard to do things a new way
P17C09 Other: (specify)
P17C88 Don’t know
P17C99 Refused

P17C09O *[ASK IF P17C09 = 1]* What other items raised concerns?

P20 Have you ever contacted MidAmerican Energy or its representatives about ways to reduce your energy bill or about the energy efficiency services MidAmerican Energy offers? [SELECT ONE]

01 Yes
02 No
-8 Don't Know
-9 Refused

P21 *[ASK IF P20 = 01]* Would you say you are not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied with the ease of finding the right person to speak with at MidAmerican Energy? [SELECT ONE]

01 Not at all satisfied
02 Somewhat satisfied
03 Very satisfied
04 Extremely satisfied
-6 Programmed skip
-8 Don’t know
-9 Refused

P22 *[ASK IF P21 = 01 OR 02]* What was the difficulty you encountered? [RECORD VERBATIM]

P23 **[ASK IF P20 = 01]** Would you say you are not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied with the usefulness of the information provided by the person you contacted? [SELECT ONE]

01 Not at all satisfied
02 Somewhat satisfied
03 Very satisfied
04 Extremely satisfied
-6 Programmed skip
-8 Don't Know
-9 Refused

P24 Are there any other services MidAmerican Energy could provide that would help your firm to become more energy efficient? [SELECT ONE]

01 Yes
02 No
-8 Don't Know
-9 Refused

P25 *[ASK IF P24 = 01]* What services? [RECORD VERBATIM]

P26 Would you say you are extremely likely, very likely, somewhat likely, or not at all likely to use MidAmerican's energy-efficiency programs in the future, should the opportunity arise? [SELECT ONE]

01 Not at all likely
02 Somewhat likely
03 Very likely
04 Extremely likely
-8 Don't Know
-9 Refused

DECISION-MAKING PROCESS

I1 Next I'd like to ask some questions about decision making at your business. How important would each of the following be to your business when considering new energy-using equipment? Please respond with not at all important, somewhat important, very important, or extremely important to you. How important is… [READ; ROTATE LIST]

For I1A through I1K:
01 Not at all important
02 Somewhat important
03 Very important
04 Extremely important
-8 Don't know
-9 Refused

I1A Availability of a rebate
I1B Recommendation of contractor or supplier
I1C Compatibility with existing equipment
I1D Initial purchase cost
I1E Operating cost
I1F Length of payback period
I1G Efficiency level of new equipment
I1H Environmental concerns
I1I Performance concerns
I1J Capital investment or budget availability
I1K Energy savings or reducing your energy bills

I1L [READ LAST] Are there any other considerations not already mentioned? [SPECIFY]

01 Yes, [RECORD RESPONSE VERBATIM]
02 No
-8 Don't know
-9 Refused

I1LO *[ASK IF I1L=1]* What considerations?

I2 *[ASK IF I1F = 01 or 02]* You rated the length of the payback period a "<I1F>". What payback period do you strive for?

__ year(s)
77 Other (specify)
-6 Programmed skip
-8 Don't know
-9 Refused

I2O *[ASK IF I2=77]* What other payback period do you strive for?

I3 Does your company have any corporate policies related to energy efficiency standards or sustainability plans that you need to consider when purchasing new equipment or making improvements to this facility? [SELECT ONE]

01 Yes
02 No
-8 Don't Know
-9 Refused

DM1 *[ASK IF I3 = 1]* Which of the following best describes your firm's energy efficiency policy? [READ LIST, SELECT ONE]

01 We purchase energy efficient equipment regardless of cost
02 We purchase energy efficient equipment if it meets payback or return on investment criteria
03 We purchase standard efficiency equipment that meets code
04 Something else [SPECIFY]
-6 Programmed skip
-8 Don't know
-9 Refused

DM1O *[ASK IF DM1=4]* How would you describe your firm's energy efficiency policy?

DM2 What are some of the major challenges that your business faces when considering implementing energy efficiency improvements at your facility? [DO NOT READ; SELECT ALLTHAT APPLY]

For DM2C01 through DM2C99:
00 Not mentioned
01 Mentioned

DM2C01 Need to incorporate purchases or plans into longer term budget
DM2C02 Lack of capital budget
DM2C03 Time constraints of internal staff to implement
DM2C04 Lack of resources to implement
DM2C05 Approval by decision-makers
DM2C06 Uncertainty regarding return on investment
DM2C07 Contractors aren't familiar with measures
DM2C08 Lack of awareness of or knowledge about energy and money saving opportunities
DM2C09 Lack of awareness/knowledge about equipment characteristics or performance
DM2C10 Lack of knowledge about how to obtain assistance from MidAmerican
DM2C11 Low prioritization of energy efficiency or conservation in firm
DM2C12 Other [SPECIFY]
DM2C88 Don't know
DM2C99 Refused

DM2C12O *[ASK IF DM2C12=1]* What other challenges does your business face?

C10 Thinking about your business over the next six months, are you not at all likely, somewhat likely, very likely, or extremely likely to do the following?
[PROGRAMMER NOTE: ROTATE A – E]

For C10A through C10C:
01 Not at all likely
02 Somewhat likely
03 Very likely
04 Extremely likely
-8 Don't know
-9 Refused

C10A To purchase new energy efficient equipment for my business?
C10B To allow a contractor into my business to service existing equipment?
C10C To look for additional ways to save energy at my business that are low cost or no cost?

C11 Thinking about the last three statements that I read to you, did the COVID-19 pandemic influence any of your responses? [SELECT ONE]

01 Yes
02 No
-8 Don’t know

C12 *[ASK IF C11 = 01]* How did it influence your responses?
[RECORD VERBATIM]

SATISFACTION

SAT1 The next questions ask about your experience with MidAmerican Energy in general as your energy provider. How would you rate the service provided by MidAmerican Energy? Would you say not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied? [SELECT ONE]

01 Not at all satisfied
02 Somewhat satisfied
03 Very satisfied
04 Extremely satisfied
-8 Don’t know [SKIP TO FIRM1]
-9 Refused [SKIP TO FIRM1]

SAT2 Why did you rate your satisfaction with MidAmerican Energy as "<SAT1>"?
[RECORD VERBATIM]

FIRMOGRAPHICS

FIRM1 Finally, I have some general questions about your facility.
What business activity accounts for most of the floor space covered by your MidAmerican Energy bill? [DO NOT READ; SELECT ONE ANSWER]

01 Office
02 Retail
03 Industrial/Manufacturing
04 Agricultural
05 Warehouse or distribution center
06 Grocery
07 Hospital
08 Other healthcare
09 College/university
10 Institution/government
11 Lodging
12 Restaurant
13 School K-12
14 Religious worship
15 Public assembly
16 Vacant
17 Other [SPECIFY]
-1 Partially completed case
-8 Don't know
-9 Refused

FIRM1O *[ASK IF FIRM1=17]* What business activity?

FIRM2 Which of the following best describes <COMPANY>'s ownership of this facility? [READ LIST; SELECT ONE]

01 Your company owns and occupies this facility [SKIP TO FIRM4]
02 Your company owns this facility but it is rented to someone else
03 Your company rents this facility from someone else
-1 Partially completed case
-8 Don't know
-9 Refused

FIRM3 Does <COMPANY> pay the electric bill at <ADDRESS>? [SELECT ONE]

01 Yes
02 No
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM4 How many buildings are occupied by your firm at this location? [READ LIST; SELECT ONE]

01 1 building
02 2 to 5 buildings
03 6 to 10 buildings
04 11 to 20 buildings
05 21 to 50 buildings
06 Over 50 buildings
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM5 What's your best guess as to the size of this facility—the approximate square footage of the space that is cooled or heated. [DISPLAY IF FIRM4 >1] Please tell us the total for all of the buildings. Is it…[READ LIST; SELECT ONE]

01 Under 5,000 sq. ft.
02 5,000 to just under 10,000 sq. ft.
03 10,000 to just under 25,000 sq. ft.
04 25,000 to just under 50,000 sq. ft.
05 50,000 sq. ft. or more
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM6 How long has the business occupied this location? [READ LIST; SELECT ONE]

01 Less than a year
02 1 through 5 years
03 6 through 10 years
04 11 through 20 years
05 More than 20 years
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM7 [IF FIRM4 = 01 SHOW **"**In what year was the building at this location constructed?"]
[IF FIRM4 > 01 OR -8, Don't know OR -9, Refused SHOW "Please tell us the year when the newest building at this location was constructed."]

____ Record year [1800 - 2020]
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM8 *[ASK IF FIRM7 = -8 OR -9]* Do you know the approximate age? Is it . . . ? [READ LIST; SELECT ONE]

01 Less than 2 years
02 2 to 4 years
03 5 to 9 years
04 10 to 19 years
05 20 to 29 years
06 30 years or more
-6 Programmed skip
-8 Don't Know
-9 Refused

FIRM9 Approximately how many full-time and part-time employees work at this location most of the year? [NUMERIC OPEN END, 0 TO 2000]

_____ [Number of employees]
-1 Partially completed case
-8 Don't know
-9 Refused

FIRM9_B *[ASK IF FIRM9 = -8]* Do you know the approximate number of employees? Is it…? [READ LIST; SELECT ONE]

01 Less than 10
02 10 to 49
03 50 to 99
04 100 to 249
05 250 to 499
06 500 or more
-6 Programmed skip
-8 Don't know

FIRM10 Which of the following best describes the facility? This facility is… [READ LIST; SELECT ONE]

01 Your company's only location
02 The headquarter location of your company with several locations
03 One of several locations owned by your company
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM12 Do you operate your facility differently depending on the season or production cycle? [SELECT ONE]
[PROBE: A business cycle refers to time periods when your business' activities might be significantly different. For example, a school might have to wait until summer to implement projects, while a manufacturing facility might wait until production is lower."]

01 Yes
02 No
-1 Partially completed case
-8 Don't Know
-9 Refused

FIRM13 What type of equipment is used to heat the space? [SELECT ALL EQUIPMENT USED] [READ CHOICES IF NEED]

For FIRM13C01 through FIRM13C99:
0 Not mentioned
1 Mentioned
-1 Partially completed case

FIRM13C01 Furnace
FIRM13C02 Rooftop unit
FIRM13C03 Infrared heaters/tube heaters
FIRM13C04 Steam Boiler
FIRM13C05 Conventional hot water boiler
FIRM13C06 High efficiency/condensing boiler
FIRM13C07 Heat pump
FIRM13C08 Electric Resistance
FIRM13C09 Other: (specify)
FIRM13C77 None [SKIP TO FIRM15]
FIRM13C88 Don't know [SKIP TO FIRM15]
FIRM13C99 Refused [SKIP TO FIRM15]

FIRM13C09O *[ASK IF FIRM13C09=1]* What type of equipment?

FIRM14 [SKIP IF FIRM13 = 08 and is only one selected] What is the main fuel used for heating? [DO NOT READ; SELECT ONE]

01 No heating fuel used
02 Electricity
03 Natural gas
04 Fuel oil
05 Solar
06 Other: (specify)
-1 Partially completed case
-6 Programmed skip
-8 Don't Know
-9 Refused

FIRM14O [ASK IF FIRM14=6] What main fuel is used?

FIRM15 What type of equipment is used to cool the space? [SELECT ALL EQUIPMENT USED] [READ CHOICES IF NEEDED]

For FIRM15C01 through FIRM15C99:
0 Not mentioned
1 Mentioned
-1 Partially completed case

FIRM15C01 "Residential-style" air conditioner
FIRM15C02 Rooftop unit
FIRM15C03 Air-cooled Chiller
FIRM15C04 Water-cooled Chiller
FIRM15C05 Heat Pump
FIRM15C06 Other: (specify)
FIRM15C77 None
FIRM15C88 Don't know
FIRM15C99 Refused

FIRM15C06O *[ASK IF FIRM15=6]* What other type of equipment?

THANK YOU AND CLOSING

COM Do you have any comments you would like to share with MidAmerican Energy?

1 Yes
2 No
-1 Partially completed case

COMO [ASK IF COM=1] Specify comments

INT99 That's all the questions I have! Thank you for your input into this important research. Have a great day.

CP Complete
-1 Partially completed case

APPENDIX D: TRADE ALLY INTERVIEW GUIDE

MIDAMERICAN ENERGY
NONRESIDENTIAL ENERGY SOLUTIONS - DIRECT PROJECT ASSISTANCE OFFERING
TRADE ALLY INTERVIEW GUIDE

ID Number:

Interviewee(s):

Company Name:

Interviewer(s):

Date:

Background

This guide will be used to understand the perspectives of trade allies involved with MidAmerican's Nonresidential Energy Solutions program for Illinois and Iowa in PY2020. As outlined in the Detailed Evaluation Plan (DEP), the interviews will be **targeting Direct Project Assistance** projects contractors have assisted with. Questions included in this guide are reflective of the researchable questions identified in the DEP.

In-depth interviews will be conducted by senior Tetra Tech staff via telephone. The interviews will be semi-structured. Therefore, the following interview protocol is only a guide to ensure certain topics are covered, but evaluators will follow the flow of the interview and modify questions as needed to fit the interviewee's circumstance and flow of conversation.

We expect the interviews to take approximately 30 minutes. We will attempt to schedule interviews with respondents in advance to accommodate each trade ally's schedule.

Introduction

Hello, my name is _____. I work for Tetra Tech, and I'm calling on behalf of MidAmerican Energy regarding your participation in their Nonresidential Energy Solutions program.
As a reminder, we would like to ask you some questions about your participation in the program in 2020 to help provide insight back to MidAmerican about program experiences, what has been working well, and what recommendations you may have to improve the program. All of your responses will be kept confidential.
Is this still a convenient time for you to talk, or would you prefer to schedule another time? [Proceed or schedule an appointment as appropriate.]

1 Yes – CONTINUE
2 No – When would be a good time to call back?

[If needed: Offer the contact name from below as the person to contact with any questions about the validity of this research.]

Name	Phone Number
Dave McCammant	563-333-8864

With your permission, I would like to record the interview. Do I have your permission to do so? [IF NEEDED: We will use the recording to help us compile the results in order to make sure we accurately represent your responses. No one but Tetra Tech staff will listen to the recording.]

Company, Role, and General Experience Information

1) To get us started, could you briefly tell me a little bit about your business?

   A. What is your role?
   B. How many staff are employed at your location?
      _____ Number
   C. What type(s) of services do you provide?
   D. How many years have you worked with MidAmerican Energy's energy efficiency programs?
      _____ Years
   E. In 2020, what percentage of your total projects were through the Nonresidential Energy Solutions program?
      _____ Percentage
   F. Do you provide services in Iowa?
      Yes No
   G. Do you provide services in Illinois?
      Yes No

Market Response

2) About what percent of the time are your commercial/industrial customers generally aware of MidAmerican Energy's rebates available prior to working with you?
   _____ Percent

3) How effective are MidAmerican Energy's marketing efforts in making commercial/industrial customers aware of rebates and services? How could they be more effective?

4) Do you find that your customers typically approach you in seeking energy efficient features or involvement in the program?

   1 Yes ---→ Why?
   2 No ---→ Why not?

5) Do any of your customers choose *not* participate in the program?

   1 Yes ---→ Why?
   2 No

6) What markets or types of commercial/industrial customers do you think the program is reaching well?

7) What markets or customer types are more challenging to reach?

8) Does the program affect your sales and recommendation practices?

1 Yes ---→ How?
2 No ---→ Why not?

9) If MidAmerican Energy's programs were not available, would the equipment types or efficiency levels you typically recommended be any different?

1 Yes ---→ How?
2 No ---→ Why not?

10) To what degree do you see the program increasing the interest and demand for energy efficient equipment? Would you say the program has no increase, some increase, or a substantial increase? *[SELECT ONE]*

1 No increase
2 Some increase
3 Substantial increase
8 *[DO NOT READ]* Don't know
9 *[DO NOT READ]* Refused

10A) Why do you say that?

Education and Outreach

11) Do you feel adequately informed of program changes?

1 Yes
2 No -> How could you be better informed of program changes?

12) What type of support have you received from MidAmerican Energy? What types of program-specific trainings have been made available to your company?

A. Did you or your staff attend any of these trainings? If so, how useful were they?

1 Yes --→ How useful were they?
2 No

B. Were the program requirements clearly explained?

1 Yes
2 No

C. What other types of trainings would you like to see offered by MidAmerican Energy?
D. What additional support could be provided?

13) Did you get enough support from Nexant/Energy Manager and/or MidAmerican/Key Account Managers when you needed it?

1 Yes
2 No → What support would you like to see added or expanded (and from which entity)?

Program Procedures and Design

14) How helpful was the assistance provided by Nexant's Energy Managers? Would you say not at all helpful, somewhat helpful, very helpful, or extremely helpful? *[SELECT ONE]*

1 Not at all helpful
2 Somewhat helpful
3 Very helpful
4 Extremely helpful
8 *[DO NOT READ]* Don't know
9 *[DO NOT READ]* Refused

14A) Why do you say that?

15) How do you assist customers with the applications, if at all? Do you have a dedicated staff person to handle applications? What percentage of your time do you spend working on the applications for this program?

16) How difficult or easy was it to enroll a project into the program? Would you say very difficult, somewhat difficult, somewhat easy, or very easy? *[SELECT ONE]*

1 Very difficult
2 Somewhat difficult
3 Somewhat easy
4 Very easy
8 *[DO NOT READ]* Don't know
9 *[DO NOT READ]* Refused

16A) Why do you say that?

17) What are the primary barriers preventing customers from participating in the program? How effective has the program been at addressing these barriers?

[PROBE: What about the impact of the July 2020 changes in the project caps: Lifting the $100,000 custom project cap and the $250,000 customer incentive cap for projects preapproved or installed on or before 12/01/2020. All completed/preapproved project's paperwork must be submitted by 12/01/2020.]

18) Do you think the program is effectively achieving savings for its participants? How can MidAmerican Energy maximize its impact?

Satisfaction

19) Thinking about the Nonresidential Energy Solutions program, how satisfied are you? Are you not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied? *[SELECT ONE]*

1 Not at all satisfied
2 Somewhat satisfied
3 Very satisfied
4 Extremely satisfied
8 Don't know
9 Refused

19A) Why did you rate your satisfaction with the program in that way?

20) How satisfied are you with the services provided by Nexant and the Energy Managers? Are you not at all satisfied, somewhat satisfied, very satisfied, or extremely satisfied?

1 Not at all satisfied
2 Somewhat satisfied
3 Very satisfied
4 Extremely satisfied
7 N/A – Have not worked with Nexant/ Energy Managers
8 Don't know
9 Refused

20A) Why did you rate your satisfaction that way?

21) How likely are you to recommend the program? Please answer on a scale of 0 to 10, where 0 is extremely unlikely and 10 is extremely likely.

_____ [Record 0-10]

22) If you were to recommend anything to MidAmerican regarding the program design or operations, what would it be?

COVID-19

23) How has COVID-19 generally affected your business? [SELECT ALL THAT APPLY]

1 Has not affected my business
2 Customer projects have been canceled
3 Customer projects been delayed --→ By how long?
4 Equipment or other materials and supplies have been taking longer to receive ---→ How much longer?
5 My business has had to reduce the services offered
6 Other

24) How do you expect COVID-19 to impact projects six months from now?

25) Are there changes in program processes resulting from COVID-19 that affected your business?

Overall Program

26) Is there anything else you'd like to share with us about MidAmerican Energy's Nonresidential Energy Solutions programs?

27) In case we would like to clarify anything we discussed, would it be alright if I contacted you again?

1 Yes --→ Confirm contact information
2 No

Those are all the questions I have today. If you think of anything you would like to add, please feel free to contact us. Thank you very much for your time.