

MidAmerican Energy Company

Energy Efficiency Plan

Docket No. EEP-2018-0002

2020 Annual Report

to the

Iowa Utilities Board

April 28, 2021



www.midamericanenergy.com/ee

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MIDAMERICAN ENERGY COMPANY
2020 IOWA ENERGY EFFICIENCY ANNUAL REPORT

EXECUTIVE SUMMARY

MidAmerican Energy Company (“MidAmerican”) presents its 2020 Annual Report on energy efficiency programs and activities. The 2020 Annual Report includes results recorded in its 2019-2023 Energy Efficiency Plan approved by Board order issued February 18, 2019 in Docket No. EEP-2018-0002 (“Plan”) which included an effective date of April 1, 2019.

The Final Order for Docket No. EEP-2018-0002 was issued on February 18, 2019 and included a Plan effective date of April 1, 2019. Immediately after the Final Order was issued, MidAmerican began preparing to finalize contracts with selected contractors for implementation of its Plan, including vendor transition plans for program delivery, program materials, and tools to be used with customers during the delivery of programs in 2019. Programs were launched as planned on or shortly after April 1, 2019, with few exceptions.

The COVID-19 pandemic made 2020 a challenging year for the delivery of EE programs across the country, and Iowa was no exception. With large parts of the Iowa economy shut down and many customers working from home, 2020 EE measure installations declined across almost all Plan programs. In early March, MidAmerican identified that in order to continue offering EE programs during the pandemic, MidAmerican would need to modify its program delivery models to reduce direct contact with customers. Some modifications to reduce direct contact with customers included:

- Transition to virtual home/building energy assessments, virtual verifications of energy efficiency measures installation.

- Replacement of free direct-installed measures with deliveries of no-cost do-it-yourself energy efficiency kits and virtual installation support.
- Inclusion of energy-saving tips on saving energy while working from home.

By early June, Iowa began to see a dramatic increase in the number of under-employed and un-employed residential customers and a greater number of nonresidential customers not operating their businesses at full capacity. Accordingly, MidAmerican made the following Plan changes to increase participation starting July 1, 2020: (See Exhibit K.2 – 2020 Mid-Year Program Changes)

- Prescriptive incentives were increased by 50 percent to enable participation by the most affected customers facing economic hardship due to the pandemic.
- Project and incentive deadlines were allowed to be extended through December 1, 2020.
- Customers were allowed to redirect incentive payments directly to contractors to help reduce a customer's out-of-pocket costs.

Additionally, MidAmerican began working with the Office of Consumer Advocate (“OCA”) in June to identify alternative services or measures that could be provided through the supplemental weatherization program due to under-utilization of program funding caused by the pandemic-related restrictions. Through MidAmerican's work with the OCA, 137,952 ENERGY STAR® certified LEDs were distributed to 29 Food Banks and/or Food Pantries in the Iowa Quad Cities, Iowa City, Waterloo, Fort Dodge, Des Moines, Sioux City and Council Bluffs for distribution to their clients.

As a result of COVID, performance in MidAmerican's EE programs, especially nonresidential programs, was significantly impacted despite the mid-year adjustments. However, with the easing of public health guidelines and restrictions in early 2021, MidAmerican has begun to see a slight uptick in participation in its 2021 EE programs.

Overall electric and natural gas gross savings achieved by MidAmerican's Iowa EE programs in 2020 were lower than projected. Program savings and spending summaries for 2020 are provided below.

2020 Electric and Natural Gas Savings Totals

- Total electric savings were 131,645,927 kWh, which were 79 percent of the overall planned electric savings. Individually, the electric savings for Energy Efficiency programs were 131,144,213 kWh and 501,714 kWh for Demand Response programs, which represented 80 percent and 15 percent of the program's planned electric savings.
- Total peak demand kW savings were 291,911 kW, which were 93 percent of overall planned 2020 year-end savings, while peak demand kW savings for Energy Efficiency programs were 36,240 kW and 255,671 kW for Demand Response programs, which represented 85 percent and 94 percent of the program's planned peak demand kW savings.
- Total natural gas therm savings were 1,408,637 therms, which were 94 percent of overall planned 2020 year-end savings.
- Total natural gas Peak therm savings were 40,249 therms, which represented 211 percent of overall planned 2020 year-end savings.

2020 Spending Totals

- Total electric program spending was \$33,654,875, which was 78 percent of overall planned 2020 spending. Individually, the electric spending for Energy Efficiency programs were \$23,384,715 and \$10,270,159 for Demand Response programs, which represented 75 percent and 86 percent of the program's planned electric spending. Administrative costs excluding regulatory assessments accounted for 25 percent of the

total 2020 electric program spending. See Exhibit D – Spending by Cost Category for additional details related to individual program’s administrative costs.

- Total gas program spending was \$4,637,223, which was 72 percent of overall planned 2020 spending. Administrative costs excluding regulatory assessments accounted for 24 percent of the total 2020 natural gas program spending.
- Total electric and natural gas program spending was \$38,292,502, which was 77 percent of total planned 2020 spending. Administrative costs excluding regulatory assessments accounted for 22 percent of the total 2020 actual Plan spending.

2020 Savings/Spending Results for Residential Programs

- Total electric and natural gas savings for residential programs excluding demand response programs were 43,850,725 kWh and 1,070,245 therms respectively, which represented 101 percent of the residential 2020 planned electric savings and 115 percent of the residential 2020 planned natural gas savings.
- Total spending for residential programs excluding demand response programs was \$9,208,938, which represented 78 percent of the residential 2020 planned spending. See Exhibit D – Spending by Cost Category for additional details related to individual program’s administrative costs.

2020 Savings/Spending Results for Nonresidential Programs

- Total electric and natural gas savings for nonresidential programs excluding demand response programs were 87,293,489 kWh and 338,392 therms respectively, which represented 72 percent of the nonresidential 2020 planned electric savings and 60 percent of the nonresidential 2020 planned natural gas savings.
- Total spending for nonresidential programs excluding demand response programs was \$16,416,297, which represented 70 percent of the nonresidential 2020 planned

spending. See Exhibit D – Spending by Cost Category for additional details related to individual program’s administrative costs.

2020 Successes for Residential Programs

- 10,006 natural gas furnaces were rebated in 2020, which was 200 percent of goal. Natural gas furnaces provided 884,699 therms of natural gas savings or 232 percent of the planned total natural gas savings for this measure.
- 7,938 central air conditioners were rebated in 2020, which was 77 percent of goal. Central air conditioners provided 2,530,081 kWh of electric savings or 128 percent of the planned total electric savings for this measure.
- 4,859 residential HVAC online applications were received in 2020.
- Over 21,000 online assessments were completed in 2020, resulting in 20,415 Energy Efficiency kits being distributed to customers. Results from customer survey cards shows customer satisfaction with the online assessment and the energy efficiency kit to be positive.
- Over 31,000 customers logged into the online home energy assessment and interacted with over 55,600 energy-saving tips. Of those, 22,812 customers logged in for the first time in 2020.
- 838 residential equipment projects were completed in 2020 by customers that completed the online home energy assessment.
- 373,868 Home Energy Reports were mailed to Iowa customers
- 15,783 emails were sent to customers who opted-in to the monthly email version of the report. The email open rate was 58 percent.

2020 Successes for Nonresidential Programs

- 141,367 LED lighting measures were rebated in 2020, which was 45 percent of the

goal. Lighting measures accounted for 27,174,806 kWh or 100 percent of electric savings achieved by the program. The program provided customer incentives totaling over \$3.0 million for lighting projects.

- 12 high efficiency boilers were installed, which was 120 percent of goal, a 240 percent increase compared to 2019.
- 255 online nonresidential HVAC and nonresidential lighting applications were received in 2020, compared to 78 in 2019.
- Small Business Express was relaunched in July, after an approximately three-month suspension due to COVID-19, with enhanced rebates and a bonus for customers who implement two or more opportunities before the end of the year, to further build momentum:
 - All qualified service providers were contacted to discuss the re-opening
 - More than 100 qualified service provider recruitment calls were made
 - A qualified service provider recruitment email was sent to over 1,400 trade allies.
- Despite the abbreviated program year, qualified service providers completed 36 assessments which identified more than 1,000,000 kWh in aggregate savings; of those assessments, 12 projects were completed in 2020, saving customers 557,535 kWh annually.
- 104 projects were completed through the program. These included 55 large projects over 50,000 square feet and 49 small projects under 50,000 square feet.
- 99 new projects enrolled in the program; 43 were large building projects over 50,000 square feet and 56 small projects under 50,000 square feet.
- The multifamily and mixed-use sector saw strong growth with 31 projects enrolled in

2020. These projects were in nine different communities across the state.

Key Challenges and Administration Issues in 2020

- Adapting program delivery models to limit direct customer contact as a consequence of pandemic-related social distancing measures.
- Use of online residential online HVAC applications did not ramp up as quickly as anticipated.
- Customers that were not financially impacted by COVID were focused on adapting operations and mitigating risk during the pandemic, and, as a result, had less time and resources to focus on energy efficiency projects.

Key Activities Planned for 2021

- Continued recruitment of trade allies to begin using the online rebate application tool.
- Manage furnace participation in the residential equipment program to not adversely impact the promotion and participation levels in other programs.
- Transitioning the HomeCheck Online tool to include embeddable widgets within the MidAmerican Energy website to make the user experience more seamless and easier to navigate.
- The Residential Behavioral program will perform a backfill, randomly selecting new customers who were not previously included in the program to increase recipient counts which have decreased over time due to natural attrition.
- The Residential Behavioral program implementer has planned to launch an updated report experience in late 2021.
- The Small Business Express offering will begin using Energy Profiler Online platform to assist interested customers with interval meters to better understand and manage how energy is consumed in their building.

- Enhancements to Trade Ally Central and the search tool to improve the trade ally and customer experience.
- A smart thermostat participation option will be available through the Residential Load Management program starting in January 2021. This option is being rolled out in phases with customers who received a smart thermostat rebate from MidAmerican in the past three years being targeted first to enroll in this new option.

FIVE-YEAR PLAN PROGRESS (2019-2023)

- Electric savings for 2019-2020 were 202,816,034 kWh, which were 61 percent of the overall electric savings for the two-year period.
- Natural gas savings for 2019-2020 were 2,037,520 therms, which were 72 percent of the overall natural gas savings for the two-year period.
- Electric program spending for 2019-2020 was \$65,130,384, which was 76 percent of the overall electric spending for the two-year period.
- Natural gas program spending for 2019-2020 was \$8,685,215, which was 70 percent of the overall natural gas spending for the two-year period.
- Total program spending for 2019-2020 was \$73,815,599, which was 75 percent of the overall spending for the two-year period.

2020 REGULATORY COMPLIANCE FILINGS

- January 24, 2020: Compliance and Informational Filing: Program Changes to Energy Efficiency Plan (2019-2023)
- April 23, 2020: Compliance and Informational Filing: Program Changes to Energy Efficiency Plan
- April 23, 2020: 2020 1st Quarter Report filed with stakeholders
- May 1, 2020: 2019 Energy Efficiency Annual Report and Exhibits

- May 4, 2020: 2019 Energy Efficiency Annual Report (revised)
- July 1, 2020: Update of Energy Efficiency Plan Program Features
- July 22, 2020: Response to Advance Update of Program Features
- July 31, 2020: 2020: 2nd Quarter Report filed with stakeholders
- September 11, 2020: EEP Program Changes (revised)
- September 23, 2020: Technical Reference Manual V.4 Errata
- September 23, 2020: Technical Reference Manual V.5
- September 23, 2020: Service List Addition
- October 26, 2020: 2020 3rd Quarter Report filed with stakeholders

EVALUATION, MONITORING AND VERIFICATION PLAN

In March 2020, MidAmerican contracted with Tetra Tech to perform process and impact evaluations of its Iowa programs included in the 2020-2023 plan. In collaboration with MidAmerican, the schedule presented below indicates each program's evaluation start date and the projected draft report date indicating when Tetra Tech plans to deliver draft Iowa program reports to MidAmerican (and to Iowa Utilities Board staff for review). Some changes may be necessary to this schedule based on other activities or initiatives.

In 2020, four program evaluations were completed. Tetra Tech provided a report for each program that documents the program design, background, methods, and key findings. The report also includes a market transformation section that summarizes market response indicators collected as part of this evaluation. Additionally, the report documents sources for claimed (ex-ante) impact results, verified and net savings (where applicable), and recommendations for measure and program level savings adjustments and process adjustments. MidAmerican has established a tracking worksheet of the recommendations included in each report. Each

recommendation has been prioritized, high, medium or low, to assist in providing direction to MidAmerican as to which recommendations should be addressed first. MidAmerican has completed its initial review of all high priority recommendations and is currently finalizing the appropriate action needed for those recommendations which will be implemented in 2021 and beyond.

Programs for Evaluation by Phase

Program	Iowa	Illinois/ NTG	Start Month	Draft Report Delivery Date	Notes
Phase 1 Programs¹					
Residential Equipment	Yes	Yes	March, 2020	October 9, 2020	Kick-off meeting was held on April 1, 2020 Draft IA/IL combined report delivered October 9, 2020 Report finalized December 10,2020
Residential Assessment	Yes	Yes	March, 2020	October 16, 2020	Kick-off meeting was held on April 20, 2020 Draft IA report delivered October 20, 2020 (note: no IL component of this report)
Commercial New Construction	Yes	Yes	March, 2020	October 16, 2020	Kick-off meeting was held on April 3, 2020 Draft IA/IL combined report delivered October 14, 2020 Report finalized December 7, 2020
Nonresidential Equipment	Yes	Yes	March, 2020	October 30, 2020	Kick-off meeting was held on March 31, 2020 Draft IA/IL combined report delivered October 30, 2020 Report finalized December 10,2020
Phase 2 Programs					
Residential Low Income	Yes	Yes	October, 2020	April 23, 2021	Kick-off meeting was held September 18, 2020
Residential Behavioral	Yes	Yes	October, 2020	May 21, 2021	Kick-off meeting was held September 18, 2020

¹ Tetra Tech sent an email to the OCA on August 28, 2020 describing some of the evaluation challenges brought about by the COVID-19 pandemic. As a result, draft report delivery dates were extended for both Residential Equipment and Residential Assessment. The table reflects the updated delivery dates.

Program	Iowa	Illinois/ NTG	Start Month	Draft Report Delivery Date	Notes
Phase 3 Programs					
Appliance Recycling	Yes	Yes	March, 2021	September 17, 2021	
Trees	Yes	No	March, 2021	October 1, 2021	
Income Qualified Multifamily ²	Yes	No	March, 2021	October 29, 2021	
Nonresidential Energy Solutions	Yes	Yes	March, 2021	October 15, 2021	
Phase 4 Programs					
Education	Yes	Yes	June, 2021	October 22, 2021	
Residential Load Management	Yes	Yes	July, 2021	November 5, 2021	
Nonresidential Load Management	Yes	Yes	July, 2021	November 19, 2021	

Survey Updates

Individual Survey Efforts	Process	Verification	Primary NTG	On-site Recruit	Notes
Phase 1 Programs					
Residential Assessment – Participant Survey	Yes	Yes	Yes	No	Survey approved July 10, 2020 Postcard approved August 10, 2020 Initial postcards mailed August 11, 2020 Postcard reminders mailed August 17, 2020 Last day of web survey availability was August 31, 2020 (676 web survey completes from IA participants; 12 interviews completed to review online design)
Residential Equipment – Participant Survey	Yes	Yes	Yes	No	Survey approved July 9, 2020 Advance letter finalized July 20, 2020 Survey Notification sent July 21, 2020 Survey letters mailed July 24, 2020 Interviewing began July 27, 2020 Last day of interviewing was September 9, 2020 (162 IA and 157 IL survey completes)

² This program was originally part of the Phase 2 programs, but due to COVID-19 very few projects were completed in 2020. The evaluation was moved to the Phase 3 programs in hopes that there would be more projects to evaluate. This was included in the email updated sent to the OCA on August 28, 2020.

Individual Survey Efforts	Process	Verification	Primary NTG	On-site Recruit	Notes
Residential Equipment – Market Actors	Yes	N/A	No	No	Interview Guide approved August 4, 2020 Survey Notification sent August 6, 2020 Interviewing began August 10, 2020 Last day of interviewing was September 18, 2020 (12 interviews completed)
Commercial New Construction - Participants	Yes	Yes	No	No	Survey approved July 6, 2020 Survey Notification sent July 13, 2020 Interviewing began July 20, 2020 Last day of interviewing was October 1, 2020 (11 IA and 2 IL survey completes)
Commercial New Construction – Market Actors	Yes	N/A	No	No	Survey finalized July 6, 2020 Survey Notification sent July 13, 2020 Interviewing began July 15, 2020 Last day of interviewing was August 28, 2020 (10 interviews completed)
Nonresidential Equipment – Participant Survey	Yes	Yes	Yes	Yes	Survey approved July 9, 2020 Survey Notification sent July 22, 2020 Interviewing begins July 29, 2020 Last day of interviewing was September 11, 2020 (239 IA and 47 IL survey completes)
Nonresidential Equipment – Market Actors	Yes	N/A	No	No	Interview Guide approved August 4, 2020 Survey Notification sent August 4, 2020 Interviewing began August 16, 2020 (12 interviews completed)
Phase 2 Programs					
Residential Low Income	Yes	Yes	No	No	
Residential Behavioral	Yes	Yes	No	No	Survey approved January 28, 2021 Postcard approved January 28, 2021 Survey Notification sent February 24, 2021
Phase 3 Programs					
Appliance Recycling	Yes	Yes	Yes	No	
Trees	Yes	No	No	No	
Income Qualified Multifamily	Yes	Yes	No	No	
Nonresidential Energy Solutions	Yes	Yes	Yes	Yes	
Phase 4 Programs					

Individual Survey Efforts	Process	Verification	Primary NTG	On-site Recruit	Notes
Education	Yes	N/A	N/A	N/A	Education questions are being incorporated into all customer and market actor surveys
Residential Load Management	Yes	Yes	No	No	
Curtailment	Yes	Yes	No	No	
General Population/ Nonparticipants					
General Population (nonparticipant) - Residential	Yes	N/A	N/A	N/A	Survey approved August 5, 2020 Advance letter finalized July 20, 2020 Survey Notification sent August 18, 2020 Advance letters mailed August 20, 2020 Interviewing began August 22, 2020 Last day of interviewing was September 25, 2020 (198 survey completes with IA customers only)
General Population (nonparticipant) - Nonresidential	Yes	N/A	N/A	N/A	Survey approved August 17, 2020 Survey Notification sent August 24, 2020 Interviewing began August 26, 2020 Last day of interviewing was September 28, 2020 (165 survey completes with IA customers only)

SETTLEMENT AGREEMENT UPDATES

MidAmerican continued its efforts in 2020 to address and implement the additional Plan commitments included in the Revised Stipulation and Agreement filed with the Board on November 16, 2018, in Docket No. EEP 2018-0002 with its stakeholders. Exhibit I – Revised Stipulation Agreement Requirements provides a summary of MidAmerican’s progress toward each item in the Revised Stipulation and Agreement and Order as of December 31, 2020.

In 2020, MidAmerican conduct collaborative meetings with stakeholders as required under its Settlement Article III. Two general collaborative meetings were held on March 24 and September 23, 2020 and two Midstream collaborative meetings on June 23 and September 23, 2020. A SharePoint site has been created that includes recordings from both the first and second Midstream Collaborative meetings. The SharePoint site link is [here](#). Exhibit M – 1st General

Collaborative Presentation and Exhibit N – 2nd General Collaborative Agenda provide more details about the topics discussed during these collaborative meetings.

PILOTS AND RESEARCH AND DEVELOPMENT UPDATES

In 2020, MidAmerican’s energy efficiency group implemented zero pilot programs or research and development initiatives.

ENERGY EFFICIENCY PROGRAMS

Residential Equipment

The Residential Equipment program promotes the purchase of energy-efficient equipment by residential customers in new and existing homes. The program provides customers with rebates to offset the higher purchase cost of efficient equipment. Targeted equipment includes heating, cooling, and smart thermostat measures.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Residential Equipment program were 3,379,769 kWh and 982,713 therms respectively. These figures were 96 percent of total planned 2020 electric savings and 152 percent of total planned natural gas savings. Total spending for the Residential Equipment program was \$4,877,541, which is 99 percent of the 2020 budgets. Administrative costs accounted for 20 percent of the total 2020 Residential Equipment spending.

Key Program Successes and Activities in 2020

Residential Equipment program highlights for 2020 include the following:

- 10,006 natural gas furnaces were rebated in 2020, which was 200 percent of goal. Natural gas furnaces provided 884,699 therms of natural gas savings or 232 percent of the planned total natural gas savings for this measure.
- 7,938 central air conditioners were rebated in 2020, which was 77 percent of goal. Central air conditioners provided 2,530,081 kWh of electric savings or 128 percent of the planned total electric savings for this measure.
- 4,859 residential HVAC online applications were received in 2020.
- In January 2020, air-source heat pumps <65 MBtuh were added to the variety of residential measures eligible for prescriptive rebates. 152 air-source heat-pumps were rebated in 2020, which provided six percent of the achieved total electric savings for

the Residential Equipment program.

- In September 2020, whole house ductless minisplit heat pumps and supplemental ductless minisplit heat pumps for existing and new spaces were added to the variety of residential measures eligible for prescriptive rebates. 32 ductless mini-split heat pumps were rebated in 2020, which provided one percent of the achieved total electric savings for the Residential Equipment program. (See Exhibit K.3 – 2020 Sept. Program Changes)

Key Program Challenges in 2020

- High volume of furnace applications resulted in funding being reallocated from other programs to avoid suspending furnaces.
- Use of online residential online HVAC applications did not ramp up as quickly as anticipated.

Promotion

MidAmerican promoted the Residential Equipment program as follows:

- MidAmerican's suite of EE programs on MidAmerican's website, customer bill messaging, eNewsletters and social media throughout the year.
- Quad Cities Builders and Remodelers Association Home Show in February.

Key Activities Planned in 2021

- Continued use of social media, eNewsletters, and bill messages throughout the year.
- Continued recruitment of trade allies to begin using the online rebate application tool.
- Manage furnace participation in the residential equipment program to not adversely impact the promotion and participation levels in other programs.

Residential Assessment

The Residential Assessment program promotes energy efficiency strategies for existing residential customers. The program is delivered through two components that assist residential customers in reducing energy usage: 1) an Online Home Energy Assessment; and 2) an Energy Efficiency Kit. The online home energy assessment gives all residential customers access to an interactive home assessment. Residential customers who complete the online home assessment are eligible for a free energy efficiency kit containing simple energy efficiency measures. There are three different types of kits offered based on the customer's answers to the online home energy assessment and the fuel source provided by MidAmerican. For example, a dual-fuel or all-electric customer would receive a kit with all-electric and water-saving measures. A gas only customer would only receive a kit with water-saving measures. A customer who only receives electric service from MidAmerican and does not have an electric water heater would only receive a kit with electric measures. Every energy efficiency kit contains educational material, information on other energy efficiency programs, installation instructions, and a customer survey.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Residential Assessment program were 2,213,914 kWh and 102,936 therms respectively. These results are 42 percent of total planned 2020 electric savings and 42 percent of total planned 2020 natural gas savings. Total spending for the Residential Assessment program was \$1,018,039 which was 54 percent of the planned 2020 budget. Administrative costs accounted for 25 percent of the total 2020 Residential Assessment spending.

2020 Key Program Successes and Activities

Residential Assessment program highlights for 2020 include the following:

- Over 21,000 online assessments were completed in 2020, resulting in 20,415 Energy Efficiency kits being distributed to customers. Results from customer survey cards shows customer satisfaction with the online assessment and the energy efficiency kit to be positive.
- Over 31,000 customers logged into the online home energy assessment and interacted with over 55,600 energy-saving tips. Of those, 22,812 customers logged in for the first time in 2020.
- The energy efficiency call center assisted 133 customers with the online home energy assessment.
- 838 residential equipment projects were completed in 2020 by customers that completed the online home energy assessment.

Key Program Challenges in 2020

- Promotion efforts were reduced in late 2020 and a portion of the Residential Assessment budget was reallocated to Residential Equipment to allow for higher than anticipated participation associated with customers installing new furnaces in their homes.
- Keeping customers engaged with the online home assessment tool and energy saving tips after they complete the assessment.

Promotion

MidAmerican promoted the Residential Assessment program as follows:

- Social media including Facebook and Twitter
- Bill messaging
- Email and paper customer newsletters
- Customized modules promoting the program in Home Energy Reports

- Rotating web banner on MidAmericanEnergy.com

Key Activities Planned in 2021

- Continued use of bill inserts, paper newsletters, eNewsletters, Home Energy Report modules and social media to promote the program.
- Transitioning the HomeCheck Online tool to include embeddable widgets within the MidAmerican Energy website to make the user experience more seamless and easier to navigate.
- Manage furnace participation in the Residential Equipment program to not adversely impact the promotion and participation levels in Residential Assessment.

Residential Behavioral

The Residential Behavioral program is designed to encourage energy savings through behavioral modification. The program provides customers with Home Energy Reports that contain personalized information about their energy use and provide smart ways to make their homes more efficient. Customers are randomly chosen by MidAmerican to participate in the program, but may “opt-out” if they do not wish to participate. The Home Energy Reports compare the customer’s energy usage to 100 similarly-situated homes in their area. The reports engage customers and lead them to take action to bring their energy usage in line with similar homes. Customers participating in the program receive two paper reports annually and can opt-in to a monthly emailed report.

The program empowers customers to understand their energy usage better and act on this knowledge, resulting in changed customer behavior. Additionally, participation in this program encourages participation in other programs by using the Home Energy Report as a promotional vehicle. By helping customers become more energy efficient and lower their utility bills, the program helps customers understand that decisions they make regarding energy usage are important and relevant to their total monthly energy usage.

2020 Results Compared to Plan and Budget

Total electric savings for the Residential Behavioral program were 32,631,921 kWh which represents 111 percent of the planned 2020 electric savings. Total spending for the Residential Behavioral program was \$872,063 which is 58 percent of the planned 2020 budget. In 2020, the contract with the program implementer was renegotiated which resulted in lower than planned spending. Administrative costs accounted for 33 percent of the planned 2020 Residential Behavioral spending.

Key Program Successes and Activities in 2020

Residential Behavioral program highlights for 2020 include the following:

- Over 168,000 customers were active in the program at the end of 2020.
- Reducing the report frequency to two reports per year has not significantly decreased savings rate compared to prior years.
- 373,868 Home Energy Reports were mailed to Iowa customers
- 15,783 emails were sent to customers who opted-in to the monthly email version of the report. The email open rate was 58 percent.
- Both the print and email Home Energy Reports were used to cross promote the Residential Assessment, Residential Equipment and Appliance Recycling programs throughout the year.
- The customer opt-out rate continues to be below national standard.

Key Program Challenges in 2020

- With the reduction of paper reports, fewer customers chose to opt-in to the monthly emailed report than anticipated.
- A program backfill was not performed in 2020 as anticipated due to challenges related to the pandemic.

Promotion

- The Home Energy Report is an “opt-out” rather than “opt-in” program. Therefore, no promotional efforts were utilized to obtain participants. The Home Energy Reports themselves promote energy saving tips and behaviors, other MidAmerican energy efficiency programs, and utilization of a customer Web portal which allows for more in-depth energy savings planning and provides additional strategies and tips.

Key Activities Planned in 2021

- The program will perform a backfill, randomly selecting new customers who were not previously included in the program to increase recipient counts which have decreased

over time due to natural attrition.

- The program implementer has planned to launch an updated report experience in late 2021.
- Both the print and email Home Energy Reports will continue to be used to cross promote other energy efficiency programs throughout the year.
- Continue to promote the opt-in monthly email report via customized print modules.

Residential Appliance Recycling

The Appliance Recycling program encourages customers to stop using old, inefficient refrigerators and freezers and helps them dispose of the old units in an environmentally responsible manner. The program provides rebates to customers participating in the program and provides free pick up and disposal of old working appliances. The program is available to residential electric customers and multi-family buildings only.

2020 Results Compared to Plan and Budget

Total electric savings for the Residential Appliance Recycling program were 2,725,590 kWh, which was 52 percent of the total 2020 electric savings. The pandemic prompted operational restrictions which resulted in lower than anticipated participation. In addition to lower than anticipated participation, achieved electric savings for refrigerators were reduced by nine percent due to a change in the deemed savings algorithm included in the Iowa Technical Reference effective on January 1, 2020.

Total spending for the Residential Appliance Recycling program was \$498,773, which was 46 percent of the 2020 budget. Administrative costs accounted for 16 percent of the total 2020 Residential Appliance Recycling spending.

Key Program Successes and Activities in 2020

Appliance Recycling program highlights for 2020 include the following:

- An online scheduling tool was launched in July.
- 851 units received an additional \$5.00 incentive for scheduling a pickup using the online scheduling tool.

Key Program Challenges in 2020

- 2,966 residential appliances were recycled, which was 55 percent of the total goal.

Due to the pandemic safety protocols that began in March, the program offered curb-

side pickups only.

- The program experienced a heavy volume of rescheduled or cancelled appointments due to the delay in deliver of new refrigerator and freezers by manufacturers as a result of the pandemic-related restrictions.

Promotion

MidAmerican promoted the Appliance Recycling program as follows:

- Social media such as Facebook and Twitter, MidAmerican's website, customer and employee newsletters and bill messaging.

Key Activities Planned in 2021

- Online scheduling tool enhancements to improve the customer experience.
- Exploring improvements in program efficiency to reduce the length of time between time of pickup and delivery of customers' recycling payment.
- Improving outreach with landlords and bulk pickup opportunities.

Residential Low-Income Program

The Low-Income program provides financial incentives and education to encourage energy efficiency in existing low-income housing. The program is delivered through three separate components to meet the needs of different customer segments.

The first component, weatherization, encourages comprehensive energy efficiency improvements in existing low-income housing by providing free energy assessments and free on-site installation of heating, water heating, lighting, refrigeration, and insulation measures. The Iowa Department of Human Rights (IDHR), which manages a network of community action program (CAP) agencies, delivers the program by identifying qualifying households and delivering assessments and weatherization services. The Low-Income program supplements funding provided by the Department of Energy's Weatherization Assistance Program through a long-term contract with IDHR.

The second component is Supplemental Weatherization, which is delivered by Green Iowa AmeriCorps collaborating with CAP agencies to provide supplemental weatherization to customers on weatherization waiting lists.

The third component is a Home Energy Report program for a select number of eligible customers. The reports are tailored to include low cost and no cost energy efficiency tips.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Residential Low-Income program were 2,899,531 kWh and (15,404) therms respectively. These figures represent 3,990 percent of total planned 2020 electric savings and (42) percent of total planned 2020 natural gas savings. The program distributed more LEDs to low income customers than planned, which resulted in an overall negative therm savings due to waste heat reductions. Total spending for the Residential

Low-Income program was \$1,634,928, which represents 82 percent of the planned 2020 budgets. Administrative costs accounted for nine percent of the total 2020 Residential Low-Income spending.

Key Program Successes and Activities in 2020

Low Income program highlights for 2020 include the following:

- \$1,311,000 in funding was provided to IDHR for weatherization services.
- 53,837 Home Energy Reports were mailed to over 14,000 customers.
- Prior to the pandemic, Green Iowa AmeriCorps performed weatherization services in Black Hawk County (13 homes), Iowa City (94 homes), and a joint weatherization blitz with IPL in Storm Lake (2 homes).
- Green Iowa AmeriCorps restructured their delivery model to accommodate pandemic restrictions. In July, they launched an Energy Savers Kit program where the customer completed a short online or telephone survey about their home and Green Iowa AmeriCorps assembled a kit with items specific to the customer's need. This replaced the in-home assessment and supplemental weatherization during stay at home restrictions. A total of 619 Energy Savers Kits were distributed in the following areas: Black Hawk County, Iowa City, Iowa Quad Cities and Oskaloosa-area.
- In an effort to get more energy efficiency measures out to low-income customers, MidAmerican partnered with Food Banks in Des Moines, Iowa Quad Cities, Iowa City, Fort Dodge, Waterloo, Council Bluffs and Sioux City to distribute 137,952 LEDs.

Key Program Challenges in 2020

- The Green Iowa AmeriCorps program relies on the CAP agencies to promote the supplemental weatherization program. This can be challenging due to turnover in staffing and lack of staff engagement.

- The statewide weatherization program was inactive from May to August due to pandemic-related restrictions.

Promotion

MidAmerican promoted the Low-Income program as follows:

- The supplemental weatherization program was promoted with flyers and in-person outreach at participating CAP agencies. In addition, the program was promoted through the Home Energy Report program in targeted areas.
- The Energy Savers Kit program was promoted with a direct mail post card to LIHEAP eligible customers in the targeted areas.

Key Activities Planned in 2021

- Green Iowa AmeriCorps will continue the Energy Savers Kit program until pandemic-related restrictions are lifted and customers are comfortable with allowing contractors into their homes. The areas that will be targeted will be rural towns where, according to public tax data, 65 percent or more residents make less than \$50,000 per year.
- Additional opportunities to get energy efficiency measures to low-income customers will be explored including a low-income kit distribution.

Nonresidential Equipment

The Nonresidential Equipment program promotes the purchase of energy efficient equipment by nonresidential customers. The program offers financial incentives to customers installing energy efficient equipment in existing buildings. Cost-effective qualifying nonresidential custom projects for non-standard equipment, new technologies, and alternate strategies may receive rebates through MidAmerican's Nonresidential Energy Solutions program.

Nonresidential equipment installed in newly-constructed commercial buildings or multi-family housing facilities is not eligible for rebates through the Nonresidential Equipment program. However, MidAmerican's Commercial New Construction program provides services and incentives based on the energy saving strategies chosen for renovation of existing buildings converted to apartments, as well as construction of new commercial buildings and multi-family housing facilities containing three or more units.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Nonresidential Equipment program were 27,217,201 kWh and (9,515) therms respectively. These figures represent 100 percent of total planned 2020 electric savings and (9) percent of total planned 2020 natural gas savings. The negative natural gas savings is a result of the significant level of LED lighting installations completed by dual-fuel customers, which the program records, as required by the Iowa Technical Reference Manual, as a heating penalty (negative therms savings). If the heating penalty was not included, natural gas savings achieved would have been 32,537 therms, which was 71 percent lower than expected. Total Nonresidential Equipment program spending was \$4,329,335 which represents 73 percent of the 2020 budget. Administrative costs accounted for 27 percent of the total 2020 Nonresidential Equipment, down 25 percent from 2019.

Key Program Successes and Activities in 2020

Nonresidential Equipment program highlights for 2020 include the following:

- 141,367 LED lighting measures were rebated in 2020, which was 45 percent of the goal. Lighting measures accounted for 27,174,806 kWh or 100 percent of electric savings achieved by the program. The program provided customer incentives totaling over \$3.0 million for lighting projects.
- 12 high efficiency boilers were installed, which was 120 percent of the goal and a 240 percent increase compared to 2019.
- 255 online nonresidential HVAC and nonresidential lighting applications were received in 2020, compared to 78 in 2019.

Key Program Challenges in 2020

- Low natural gas prices continue to influence customers to delay investing in natural gas improvements.

Promotion

MidAmerican promoted the Nonresidential Equipment program as follows:

- Outreach to trade allies to assist trade allies in fully understanding the offerings available for lighting equipment measures while at the same time promoting other measures and other program offerings.
- MidAmerican's suite of EE programs on MidAmerican's website, customer bill messaging, eNewsletters and social media throughout the year.

Key Activities Planned in 2021

- Continued use of social media, eNewsletters, bill messaging throughout the year.
- Adding two new measures:
 - Air source heat pumps, air-cooled units <65 MBtuh

- Central air conditioners; two tiers
 - >65 and <135 MBtuh minimum IEER 14.6
 - >135 and <240 MBtuh, minimum IEER 14.0
- Continued recruitment of trade allies to begin using the online rebate application tool for nonresidential prescriptive HVAC and lighting equipment.

Nonresidential Energy Solutions

The Nonresidential Energy Solutions program promotes comprehensive energy efficiency for existing commercial buildings and industrial facilities through two offerings: 1) Small Business Express; and 2) Direct Project Assistance. These offerings are tailored to the unique needs of nonresidential customers by size and purpose. Qualifying customers receive expert project evaluation advice and financial incentives to help offset the costs of new energy efficiency investments. This program also serves agriculture and market-rate, multi-family customers.

For multi-family properties, the existing structure must have three or more units and be served through nonresidential rates. These participants generally are property management companies or multi-family housing property owners.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Nonresidential Energy Solutions program were 21,770,290 kWh and 52,915 therms respectively. These figures represent 35 percent of total 2020 electric savings and 25 percent of total 2020 natural gas savings. Total spending for the Nonresidential Energy Solutions program was \$4,951,726 which was 49 percent of the 2020 budget. Administrative costs accounted for 28 percent of the total 2020 Nonresidential Energy Solutions spending. Program spending and achieved electric and natural gas savings were lower than anticipated due to operational restrictions and economic hardships caused by COVID-19.

Key Program Successes and Activities in 2020

Nonresidential Energy Solutions program highlights for 2020 include the following:

- More than 1,100 customer meetings and phone calls were conducted by energy managers to identify, develop, and manage projects.

- Two large refrigeration system optimization projects were completed at a food processing plant and a refrigerated warehouse; combined the projects reduced annual energy consumption by more than 1,300,000 kWh.
- 14 large custom LED lighting and/or advanced lighting control projects were completed resulting in over 11,000,000 kWh of savings, the lighting system upgrades account for 79 percent of the electric savings.
- Small Business Express was relaunched in July, after an approximately three month suspension due to COVID-19, with enhanced rebates and a bonus for customers who implement two or more opportunities before the end of the year; to further build momentum:
 - All qualified service providers were contacted to discuss the re-opening
 - More than 100 qualified service provider recruitment calls were made
 - A qualified service provider recruitment email was sent to over 1,400 trade allies
- Despite the abbreviated program year, qualified service providers completed 36 assessments, which identified more than 1,000,000 kWh in savings; of those assessments 12 projects were completed in 2020 saving customers 557,535 kWh annually.

Key Program Challenges in 2020

- Customers that were not financially impacted by COVID were focused on adapting operations and mitigating risk during the pandemic, and, as a result, had less time and resources to focus on energy efficiency projects.
- To appropriately respond to the COVID pandemic, on-site visits by Small Business Express qualified service providers were suspended from March to June 2020, and on-

site visits by energy managers were suspended from March to December 2020, these suspensions:

- Reduced the ability of qualified service providers and energy managers to assist customers in identification of cost-effective, energy-saving opportunities.
- Disrupted the momentum that was building within the Small Business Express, qualified service provider network.

Promotion

MidAmerican promoted the Nonresidential Energy Solutions program as follows:

- MidAmerican's suite of EE programs on MidAmerican's website, customer bill messaging, eNewsletters and social media throughout the year.
- Ten segment-specific reports were developed and posted to MidAmerican's website to assist small businesses better understand how energy is being used in their building and relevant upgrades that would allow them to save energy and money.
- Small Business Express marketing effort included development of a dedicated webpage specific to Small Business Express.
- To further promote the program, MidAmerican has continued the following:
 - As a result of Revised Stipulation and Agreement item #17, MidAmerican Energy will continue its non-incentive recognition program for Key Account Managers performance in providing customers with education, supporting Energy Efficiency programs and increase participation in Nonresidential Energy Solutions program. MidAmerican will continue presenting the KAM award, during the first quarter of each year, to the Key Account leadership team.

Key Activities Planned in 2021

- Develop and implement strategic marketing plan for business sectors to increase participation and project pipelines, including reengagement with customers that deferred projects in 2020 due to COVID-19.
- Develop five additional segment-specific reports.
- Use Energy Profiler Online to assist interested customers with interval meters to better understand and manage how energy is consumed in their building.

Commercial New Construction Program

The Commercial New Construction program promotes the design and construction of high-efficiency commercial buildings, including new building construction and major renovations of existing buildings. The program is delivered in partnership with developers, architects, engineering firms, and equipment contractors, and provides a mix of technical and financial assistance to help influence projects during the planning stage. Electric energy design assistance and construction incentives are offered to reduce market barriers to incorporating electric energy efficiency in construction projects.

All commercial new construction projects are ineligible for residential or nonresidential equipment prescriptive rebates. Natural gas only customers are ineligible for program participation.

The program offers a variety of services, tailored to the varying needs of different market segments. Based on project type, size, etc., the program assigns the new construction project to the appropriate service that best fits the customer's needs. The services include:

- Standard Small Service – Targets smaller projects that can be served effectively through an online energy modeling and decision-making tool, conference call assistance, and limited face-to-face meetings. Several building types up to 15,000 square feet are eligible.
- Standard Large Service – Targets projects larger than 15,000 square feet interested in pursuing more standard energy efficiency strategies. This service can readily accommodate fast-track projects, often smaller in size or with less complicated designs.
- Custom Strategy Service – Targets projects larger than 15,000 square feet interested in pursuing customized energy efficiency strategies. This service provides energy

modeling of custom efficiency strategies selected by the owner/design team.

- Multifamily Service – Targets the needs of high-rise and low-rise multifamily housing projects. Whole-building energy analysis will be provided to guide the selection of efficiency strategies. Evaluates energy efficiency opportunities of the building, both as a whole and as individual housing units, to increase energy savings and drive energy efficiency.

Services are also available as a volume-build process for retail/chain buildings that follow an organization's standard building footprint, regardless of building size. Owners with multiple buildings with identical designs may participate through this streamlined volume-build process.

2020 Results Compared to Plan and Budget

Total electric and natural gas savings for the Commercial New Construction program were 38,152,274 kWh and 291,920 therms, respectively. This represents 137 percent of the planned 2020 electric savings goal. Natural gas savings are the result of prior-plan project accruals. Total spending for the program was \$6,404,292 which was 122 percent of the planned 2020 budgets. Administrative costs accounted for 18 percent of the total 2020 Commercial New Construction spending.

Key Program Successes and Activities in 2020

Commercial New Construction program highlights for 2020 include the following:

- 104 projects were completed through the program. These included 55 large projects over 50,000 square feet and 49 small projects under 50,000 square feet.
- 99 new projects enrolled in the program; 43 were large building projects over 50,000 square feet and 56 small projects under 50,000 square feet.
- Projects enrolled in 2020 were an average of 75,500 square feet, with a total of more than 7.4 million square feet.

- While the program saw its highest enrollment in the Des Moines metro area, the program enrolled projects in 30 communities in 18 counties across the state.
- The multifamily and mixed-use sector saw strong growth with 31 projects enrolled in 2020. These projects were in nine different communities across the state.
- 80 projects received consulting on natural gas savings strategies with over 266,000 therms of savings identified.
- Three architecture, engineering, development, and construction firms received a training seminar at their offices.
- Maintained strong participation in the program through direct outreach to the design and construction community despite the challenges posed by the pandemic.

Key Program Challenges in 2020

- The pandemic presented several challenges specific to the CNC program:
 - Projects under construction or starting construction in 2020 saw delays in receiving construction materials due to supply chain issues.
 - Several sectors saw a significant decrease in enrollments including local, county and state government buildings, hotels, offices, and retail facilities. This reflects the economy-wide decrease in construction activity in these sectors.
 - In-person outreach events were cancelled or transitioned to virtual events, reducing the opportunity for direct outreach to the design community.
- The removal of gas incentives has reduced the overall incentive projects can receive; however, all projects where natural gas was incorporated into the project did receive gas modeling.

Promotion

- Joint-utility promotional efforts with IPL included:
 - Print Ads included in the winter, spring, summer and fall issues of *IA architect* magazine.
 - A virtual booth at the 2020 Iowa American Institute of Architects (AIA) virtual Convention. In conjunction with the event, recipients of the 2020 Excellence in Energy Efficient Design Award were also recognized for their outstanding efforts in reducing energy use through joint-utility CNC activities. Two seminars were presented by program representatives during the virtual convention.
- Virtual lunch and learn sessions were conducted with architecture and engineering firms; these sessions were approved for one continuing education Learning Unit through the AIA.
- A multifamily sector fact sheet was created to promote the benefits of the program to this sector. The fact sheet has information specific to the sector along with a case study of a recently completed project.
- Program promotion and networking with the architecture and engineering community occurred at multiple events and meetings, including virtual events, for organizations including: American Institute of Architecture, United States Green Building Council Iowa, Iowa Chapter and the Central Iowa Architects Council, and Iowa Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers.

Key Activities Planned in 2021

- Outreach to income qualified multifamily developers will be conducted to educate them on the benefits and process of the program.

- Continue to bring new projects into the project pipeline through lunch and learn programs, investigating projects leads found through Construct Connect Insights, phone calls to design team firms, monitoring news and construction services, advertising, customer and trade event participation, presentations at customer and industry events, and key account manager project identification.
- Participate in the eleventh annual Excellence in Energy Efficiency Awards announced in conjunction with the 2021 AIA Iowa Convention in September.

Income Qualified Multifamily Housing Program

The Income Qualified Multifamily Housing program provides services and incentives to serve the specific needs of multifamily housing building owners and property managers to help improve the overall energy efficiency of their buildings and reduce their operating costs. MidAmerican targets existing income-qualified multifamily housing, institutional housing, and emergency shelters. This offering provides comprehensive on-site energy assessments to identify areas of high energy use, free direct installation measures, and incentives for measures identified during the assessment. Participants are subject to prequalification. For eligibility, a multifamily property must be developed under Section 8 of the U.S. Housing Act of 1937, Low-Income Housing Tax Credit Property under the Tax Reform Act of 1986, Housing and Urban Development's Sectional Housing Types of Section 202 and Public Housing, or the US Department of Agriculture's Section 515 Rural Rental Housing. An on-site assessment is available to owners of multifamily buildings that contain four or more units that receive electricity and/or natural gas supplied from MidAmerican.

MidAmerican's Commercial New Construction program provides services and incentives based on the energy savings strategies chosen for renovation of existing buildings converted to apartments, as well as construction of new multi-family housing facilities containing three units or more.

2020 Results Compared to Plan and Budget

Total electric and gas savings for the Income Qualified Multifamily Housing program were 153,723 kWh and 3,072 therms, respectively. These figures are six percent of the planned 2020 electric savings and one percent of the planned 2020 gas savings. Total spending for the Income Qualified Multifamily Housing program was \$411,368 which is 25 percent of the planned 2020 estimated budget. Administrative costs accounted for 65 percent of the total 2020 Income

Qualified Multifamily Housing spending. The higher-than-anticipated percentage of administrative costs were primarily due to the inability to perform in-person direct installs and insulation and air sealing. The program was able to continue to offer building assessments virtually.

Key Program Successes and Activities in 2020

Income Qualified Multifamily program highlights for 2020 include the following:

- A total of 123 buildings received assessments; 39 buildings had full on-site (including customer units) assessments prior to pandemic-related restrictions, 47 buildings had virtual assessments, and 37 buildings had on-site common area assessments.
- 1,833 electric direct install measures and 1,175 gas direct install measures were installed.
- One building was scheduled to receive insulation and air sealing in March. However, this project is on hold until pandemic-related issues are diminished. There is one additional building in the pipeline that will be assessed for insulation and air sealing when these services are offered.
- 196 additional lighting measures and 5 HVAC measures were installed as a result of the program's influence.

Key Program Challenges in 2020

- Many of the key property management companies in the state have already participated in the program, making enrollment a challenge.
- All program insulation and air sealing projects were put on hold due to air flow concerns with pre-install and blower door testing being conducted during the pandemic.
- While the program was able to proceed with common area direct installs beginning

July 1, 2020, all in-unit direct installs were put on hold beginning in mid-March.

Promotion

MidAmerican promoted the Multifamily Housing program as follows:

- Updated and simplified the program factsheet which made it easier to distribute digitally.
- Community Action Partner agencies and local housing authorities were contacted at various times throughout the year.
- Although in-person outreach was limited, the program implementer continued outreach via telephone and email.

Key Activities Planned in 2021

- Launch a kit program to tenants to get energy efficiency measures into low-income households. This program will not replace in-unit direct installs, but will be a temporary program adjustment during the pandemic.
- Utilize existing relationships with Community Action Agencies that participate in the Statewide Weatherization program to help generate more participants.
- Perform outreach to smaller property owners where insulation projects are more viable.

Education Program

The Education program promotes energy efficiency education through activities organized into three general areas: school curricula, awareness, and trade ally support.

School Curricula

MidAmerican works with schools to integrate energy efficiency education into classroom curriculum and extracurricular activities.

Awareness

MidAmerican engages in a number of activities to increase general energy efficiency awareness and in the Company's programs. MidAmerican uses a comprehensive marketing plan that includes traditional and nontraditional marketing strategies for overall and individual energy efficiency programs. Additional marketing and program awareness may also be administered through individual programs.

Trade Ally Support

MidAmerican engages in a number of activities to fully inform trade allies of program changes, encourage trade allies to promote MidAmerican's energy efficiency programs, and recognize outstanding trade ally performance. MidAmerican currently offers a wide range of support services to its trade allies, including a Trade Ally Network website, dedicated support staff, formal and informal training, personal communication through in-person meetings, focus groups, phone calls, email, newsletters and advertising support.

2020 Results Compared to Plan and Budget

There were no planned electric or gas savings in 2020. Total spending for the Education program was \$627,170 which is 63 percent of the 2020 budget.

Key Program Successes and Activities in 2020

Education program highlights for 2020 include the following:

- MidAmerican promoted its EE programs at community or customer events in the Iowa service territory, which included:
 - Quad Cities Builders and Remodelers Association Home Show, Des Moines Home and Garden Show, and the Siouxland Home Show.
- EE programs and topics were promoted in 11 out of the 12 residential and business eNewsletters and was promoted 106 times across MidAmerican's social media channels. Total estimated impressions through energy efficiency digital ads were nearly 10 million and click-thru-rates were well above industry average. A digital ad impression is defined as the opportunity for a customer potentially seeing the ad.
- Direct outreach was made to educators in grades K-6 to provide awareness for the *eSMARRTkids* website and encourage group orders for booklets to supplement online teaching programs.
 - Over 43,000 students received energy efficiency education materials.

Key Program Challenges in 2020

- Due to school shutdowns and hybrid models during fourth quarter, a combined web-based/digital outreach campaign with direct telephone outreach to educators was developed for school outreach.

Key Activities Planned in 2021

- Development and implementation of additional training and outreach strategies to educate new and low- or non-participating trade allies on program services and incentives.
- Enhancements to Trade Ally Central and the search tool to improve the trade ally and customer experience.

Trees Program

The Trees program promotes tree planting through the *Trees Please!* offering. The program provides annual grants for community tree planting projects. Any municipality in MidAmerican's service area may submit a grant request annually for tree planting projects in common areas such as publicly-owned properties, schools, and community spaces. Tree-planting projects must also provide energy efficiency benefits from the new trees. Communities may receive enhanced grants through the program to recover from a natural disaster. Communities are given information on the benefits of planting trees in an energy efficient landscape and they are directed to the website to learn more about other MidAmerican energy efficiency programs available in Iowa.

2020 Results Compared to Plan and Budget

There were no planned electric or gas savings in 2020. Total spending for the Trees program was \$119,171 which is 79 percent of the 2020 budget.

Key Program Successes and Activities in 2020

Trees program highlights for 2020 include the following:

- 55 communities received *Trees Please!* grants. The funding grants received by the 55 communities totaled \$97,020. Thirty-six of these communities received a *Trees Please!* grant last year and 19 communities were new and have not received a grant in the past year(s).
- MidAmerican received the Tree Line USA award by the National Arbor Day Society. Tree Line USA is sponsored by The National Arbor Day Foundation in cooperation with the National Association of State Foresters. This award recognizes public and private utilities across the nation which implement tree management practices that protect and enhance America's urban forests.

Key Program Challenges in 2020

- Communities had significant delays for their tree planting projects due to a wetter than normal spring, local flooding, and pandemic-related restrictions for volunteers throughout the year.

Promotion

MidAmerican promoted the Tree programs as follows:

- Annual outreach to over 360 municipalities throughout the MidAmerican service territory encourages city and community leaders to submit a *Trees Please!* grant for tree-planting projects that promote energy efficiency.
- *Trees Please!* participation signs were distributed to 10 new communities participating in the *Trees Please!* program. These signs are designed to be used at the city welcome signs or on poles where they have planted their trees.
- Social media such as Facebook and Twitter, press releases and customer and employee newsletters.

Key Activities Planned in 2021

- Conduct outreach to non-participating communities to encourage participation and to help address any barriers that may keep the community from submitting a grant request in the future.
- Investigate the feasibility of creating a webinar or video to educate community leaders about the *Trees Please!* offering, participation requirements, and how to submit a grant request.

DEMAND RESPONSE PROGRAMS

Residential Load Management

SummerSaverSM is MidAmerican's residential air conditioner load control program. The program provides financial incentives to residential customers in exchange for allowing MidAmerican to control their central air conditioning on hot summer days when the Company forecasts a system peak demand or operating conditions require use of the program.

Central air conditioners and air source heat pumps in owner-occupied single-family homes are eligible for the program. During cycling events, a small load control receiver (LCR) operates by overriding the customer's thermostat, which in turn shuts down the compressor. However, the indoor fan continues to operate, providing air circulation.

2020 Results Compared to Plan and Budget

The Midcontinent Independent System Operator (MISO) nor MidAmerican called for a SummerSaver cycling event in 2020. A certification event was conducted on August 26, 2020 for MidAmerican's control group only. MidAmerican's control group, which consists of 147 residential interval meters, is used to verify the program's ability to communicate with load control receivers (LCRs) used to cycle air conditioners and calculate the actual reduction in MidAmerican's systems load when these devices are called upon to be curtailed. Total electric savings for the Residential Load Management program in 2020 were 107 kW of system peak demand and 213 kWh. The peak demand reduction and kWh savings recorded in 2020 from the control-group-only test event was very limited; as a result of this limited test, the program is not considered cost-effective. However, if all 61,445 devices installed in Iowa participated in this certification event, MidAmerican's peak reduction and energy savings recorded would have been 43,225 kW and 86,451 kWh, respectively and results in the program being cost-effective. Total spending for the Residential Load Management program in 2020 was \$2,586,542 which is 79

percent of the 2020 budget. Administrative costs accounted for 52 percent of the total 2020 Residential Load Management spending which is primarily due to start-up costs associated with the forthcoming smart thermostat offering.

Key Program Successes and Activities in 2020

Residential Load Management program highlights for 2020 include the following:

- 61,445 LCRs operating in the field during 2020.
- SummerSaver Qualified Service Providers (QSPs) have been secured to install and service LCRs in all of MidAmerican's service territories.

Key Program Challenges in 2020

- Quality control was delayed until the fall due to pandemic-related restrictions.

Promotion

MidAmerican promoted the Residential Load Management program as follows:

- Direct mail solicitation to customers who moved using *Keep It Going* cards. These cards are sent to customers that move into a home that already has an LCR installed. The card offers the new homeowner automatic enrollment in the program.
- Promotion as part of the MidAmerican's suite of energy efficiency programs through print, social media and on MidAmerican's website.

Key Activities Planned in 2021

- A smart thermostat option will be available starting in January 2021. This option is being rolled out in phases with customers who received a smart thermostat rebate from MidAmerican in the past three years being targeted first to enroll in this new option.

Nonresidential Load Management

The Nonresidential Load Management program provides large nonresidential customers with financial incentives to reduce electricity use during MidAmerican's system peak hours. MidAmerican contracts with customers to reduce at least 250 kilowatts of demand by shedding load completely without replacement, shifting load to nonpeak periods, and/or generating power on-site to replace the curtailed power. Events may be triggered either by MISO or tariff provisions in MidAmerican's Rider CS. Nonresidential Load Management is a mature program; MidAmerican and its predecessor companies have offered it for many years, and most participants have been involved for multiple years.

MidAmerican provides information to customers regarding curtailments, curtailment strategies and analysis of load data via key account managers and an interactive web application. Participants are required to use MidAmerican's internet-based curtailment event manager application that provides notice of curtailment events, allows monitoring of performance in near-real time, and includes access to data and energy analysis modules on a year-round basis to help customers actively manage energy use. Each participant's overall performance is evaluated at the end of the curtailment season.

2020 Results Compared to Plan and Budget

Total electric savings for the Nonresidential Load Management program were 256 MW of system peak demand. This figure represents 111 percent of total 2020 peak demand kW savings. Total spending for the Nonresidential Load Management program was \$7,683,618 which is 89 percent of the 2020 budget. Administrative costs accounted for five percent of the total 2020 Nonresidential Load Management spending.

Program Participation and Capacity Enrollment Details

In 2020, 93 nonresidential customers participated in the Nonresidential Load

Management program. All 93 were returning participants and the total enrolled capacity for the 2020 program was 249,794 kW. Nineteen contracts were amended for the purpose of changing contract curtailment load accounting for a net decrease of 2,613 kW of curtailable load; which is an approximate one percent decrease. The following table provides additional details about the participants and capacity enrolled in the Nonresidential Load Management for each year of the 2019-2023 Plan compared to 2018 enrollment details under MidAmerican’s previous energy efficiency plan.

	2018	2019	2020
Total number of participants	107	99	93
New participants	0	0	0
Returning participants	107	99	93
Generator*	64	60	59
Shed/Shift	43	39	34
Contracted curtailable load	267,312	263,372	249,794
New participants	0	0	0
Returning participants	267,312	263,372	249,794
Generator*	80,585	78,710	73,542
Shed/Shift	186,727	184,662	176,252

** Customers who use both a generator and shed part of their load to meet their curtailment obligations are included entirely in the generation group.*

Key Program Successes and Activities in 2020

Nonresidential Load Management program highlights for 2020 include the following:

- Two curtailment events were called by MidAmerican on August 24, 2020 and August 25, 2020. Two of the three rotating groups was requested to participate. See Exhibit J for more details.
- Physical test events were held between August 10, 2020 and September 25, 2020 for those that did not participate in an actual event during the 2020 summer season. See Exhibit J for more details.

- No curtailment events were called by the Midcontinent Independent System Operator during the 2020 summer season.

Key Program Challenges in 2020

- MISO tariff changes, including participant notification of actual physical availability and testing requirements, continue to be refined.

Promotion

MidAmerican promoted the Nonresidential Load Management program with:

- An enhanced training session was held with Key Account Managers to review details of the program and to provide answers to potential customer questions. Key Account Managers held one-on-one meetings with prospective participants.
- A program information sheet, tariff and contract were distributed to prospective participants. These documents clearly explained the program, customer requirements, financial incentives and program compliance. A program-specific web page also is available to help promote the program.

Key Activities Planned in 2021

- Continued implementation of MISO tariff changes.