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MidAmerican Energy Company

Energy Efficiency Plan

Docket No. EEP-2012-0002

2015 Annual Report

to the

Iowa Utilities Board

May 2, 2016

www.midamericanenergy.com/ee

Executive Summary

MidAmerican presents its 2015 annual report on energy efficiency programs and activities. The 2015 results are for the second year of the 2014-2018 Iowa Energy Efficiency Plan (Plan) approved on December 16, 2013, in Docket No. EEP-2012-0002. MidAmerican's 2014-2018 Plan continues to include a comprehensive set of programs that will help Iowa customers continue to manage energy use, reduce cost, protect the environment and increase business competitiveness. Many of the program offerings in this Plan are similar to those in the previous plan, such as home assessments, equipment rebates for homes and businesses and low income services. MidAmerican expanded its 2014-2018 Plan, however, to include two new programs; Residential Behavioral and Residential Heating, Ventilating and Air Conditioning (HVAC) Tune-Up. MidAmerican included these new programs to help increase residential customer participation and energy savings. These new programs encourage energy savings through behavioral modification and proper maintenance and operation of heating and cooling systems in existing homes. MidAmerican also expanded commercial program offerings, which include Commercial Energy Solutions (previously the Small Commercial Assessment program), Commercial New Construction and Industrial Partners (previously known as Nonresidential Energy Analysis). These three programs were expanded to increase participation by addressing the specific needs of commercial customers.

Overall electric savings achieved by MidAmerican's Iowa energy efficiency programs in 2015 were 120 percent of the planned goal while gas savings achieved by the programs were 105 percent of projected savings. Total electric and gas savings recognized from all programs in 2015 include 310,543,852 kWh and 7,426,666 therms. The savings are 11 percent higher for electric and 31 percent higher for gas compared to 2014 savings. Additionally, these savings are greater

than savings realized in any year of the 2009-2013 Plan. Program savings and spending summaries are provided below.

The increased level of savings in both electric and natural gas programs can be contributed to heighten levels of awareness of program offerings, expanded or new programs in place for the entire 2015 year and customers utilizing the added resources available through programs like Industrial Partners and Commercial Energy Solution. For example, the Industrial Partners and Commercial Energy Solution programs assist customers with gathering the information needed to successfully move projects through their internal approval processes and implementation of projects in their facilities. Additionally, the impact of customers' rapid acceptance and installation of LED lighting measures cannot be overlooked. In 2015, LED lighting projects across all nonresidential programs accounted for 73,818,911 kWh or 24 percent of electric savings achieved by all nonresidential programs. The nonresidential programs also provided combined customer incentives for installed LED lighting projects totaling $14,993,195.

Electric and Gas Savings Totals for 2015

- Electric savings were 310,543,852 kWh, which were 120 percent of overall planned 2015 year-end savings and 1.48 percent of MidAmerican's annual retail electric sales in Iowa.
- Peak demand kW savings were 267,986 kW, which were 76 percent of overall planned 2015 year-end savings.
- Natural gas therm savings were 7,426,666 therms, which were 105 percent of overall planned 2015 year-end savings and 1.24 percent of MidAmerican's annual retail natural gas sales in Iowa.

- Gas Peak therm savings were 88,713 therms, which were 110 percent of overall planned 2015 year-end savings.

Spending Totals for 2015

- Electric program spending was $75,995,403, which was 103 percent of overall planned 2015 year-end spending.
- Natural gas program spending was $34,023,642, which was 102 percent of overall planned 2015 year-end spending.
- Total actual electric and gas program spending was $110,019,045, which was 103 percent of total planned 2015 spending.

Savings/Spending Results for Residential and Nonresidential Programs

Residential Programs

- Total electric and gas savings for residential programs were 111,489,772 kWh and 5,453,817 therms respectively, which represented 87 percent of total 2015 planned electric savings and 108 percent of total 2015 planned gas savings.
- Total spending for residential programs was $54,774,227, which represented 99 percent of the 2015 Plan.

Nonresidential Programs

- Total electric and gas savings for nonresidential programs were 199,054,081 kWh and 1,972,849 therms respectively, which represented 153 percent of total 2015 planned electric savings and 96 percent of total 2015 planned gas savings.
- Total spending for nonresidential programs was $52,615,647, which represented 106 percent of the 2015 Plan.

Progress in Five-Year Plan (2014-2018)

- Electric savings for 2014-2015 were 597,048,365 kWh, which were 119 percent of overall planned electric savings for the two-year period.
- Natural gas savings for 2014-2015 were 13,312,309 therms, which were 96 percent of overall planned gas savings for the two-year period.
- Electric program spending for 2014-2015 was $141,807,055, which was 98 percent of overall planned electric spending for the two-year period.
- Natural gas program spending for 2014-2015 was $61,981,773, which was 95 percent of overall planned gas spending for the two-year period.
- Total program spending for 2014-2015 was $203,788,828, which was 97 percent of overall planned spending for the two-year period.

2015 Regulatory Compliance Filings[1]

- January 30, 2015: Compliance Filing Key Program Changes
- February 27, 2015: Reconciliation of Energy Efficiency Cost Recovery Factor
- May 1, 2015: 2014 Annual Report
- May 14, 2015: 2015 1st Quarter Report filed with stakeholders
- July 30, 2015: 2015 2nd Quarter Report filed with stakeholders
- October 30, 2015: 2015 3rd Quarter Report filed with stakeholders
- November 25, 2015: Final Report on Net-to-Gross
- December 24, 2015: Errata to Final Report

[1] On March 21, 2016, MidAmerican filed a waiver request of the requirement to file a Plan modification since some program spending levels were below the 2015 Plan requirements. The Board docketed the request as Docket No. WRU-2016-0008-0156.

2015 Successes and Administration Issues

Residential Programs

- The Residential Equipment program showed growth from 2014 results in both electric and natural gas savings, as the contractor base became more familiar with the SAVE installation requirements.
    - 11,103 natural gas furnaces were rebated in 2015, which was 90 percent of the planned goal. Natural gas furnace and quality installation rebates provided 88 percent of the achieved total natural gas savings for the Residential Equipment program.
- In the Residential Behavioral Program, 1,036,512 Home Energy Reports were mailed to Iowa customers, and 16,393 electronic reports were sent to customers who opted-in to the monthly email version of the report.
- In the Residential Assessment Program, MidAmerican partnered with the City of Urbandale to provide insulation incentives along with the City of Urbandale's zero interest rate revolving loan program. The pilot project was kicked off in August 2015. The City of Urbandale identified the eligible geographic area and target marketed the program to area residents. MidAmerican has completed five assessments for customers enrolling in this program.

Nonresidential Programs

- Lighting measures continued to be one of most popular features of many of the nonresidential programs, especially LED lighting measures, which have become the lighting measure of choice for many customers and trade allies.
    - LED lighting measures accounted for 35,030,200 kWh or 63 percent of

electric savings achieved in the Nonresidential Equipment program, 18,864,121 kWh or 74 percent of electric savings achieved in the Commercial Energy Solutions program, 17,549,309 kWh or 31 percent of electric savings achieved in the Industrial Partners program, 1,116,850 kWh or18 percent of electric savings achieved in the Multifamily program and 426,268 kWh or 37 percent of the electric savings achieved in the Agribusiness program.

- The Industrial Partners program achieved twice the electric savings goal for 2015, while electric spending for the program was maintained at 121 percent of the projected electric spending budget.
- A significant increase in natural gas savings was achieved across nonresidential gas programs even during a period of very low natural gas prices.

Key Challenges in 2015

- Keeping up with rapidly changing lighting technology continued to pose a challenge for deployment. Customers are having difficulty selecting the right lamp for the right application.
- Customers continued to be slow to migrate to more efficient electric motors.
- Enhanced building codes continue to impact ENERGY STAR new home starts. Few builders are successfully marketing the benefits of energy efficient homes in order to recoup the efficiency investment.
- Residential Behavioral achieved savings were lower than anticipated in 2015 due to a delay in replacing participating customers who relocated outside of MidAmerican's service territory. Additionally, MidAmerican experienced two consecutive years of warmer winters and cooler summers.

- The relatively cool summer in 2015 reduced the number of "peak day" events.
- Achieving Industrial Partner natural gas savings continues to be a challenge due to the relatively small population of industrial participants who purchase natural gas from MidAmerican.

Key Activities Planned in 2016

- Starting in July, MidAmerican will promote the enhanced online home energy assessment tool available to all residential customers.
- Starting in 2016, MidAmerican increased the quantity of direct install LEDs available to qualifying customers during an on-site assessment.
- The next generation of print and email Home Energy Report is planned for migration in fall of 2016, which will be a highly personalized report that is targeted to deliver increases in energy efficiency program enrollment, promote new products, and drive digital engagement.
- MidAmerican will examine the current comparative rebate levels between the Residential Equipment and Residential New Construction programs to determine if a change in rebate levels is needed to encourage additional electric participation in the Residential New Construction program.
- MidAmerican plans to conduct an electric load research survey to determine customers' consumption during peak events. The SummerSaver sample data will be used to help MidAmerican better understand the benefits the SummerSaver program provides to all residential customers.
- MidAmerican's 2016 Multifamily strategic plan will continue to include additional tactics to improve the conversion rate and to transition the program to a

comprehensive program instead of a simple direct install program.

Evaluation, Monitoring and Verification Plan

MidAmerican's last evaluation of Iowa programs was completed in February 2013. MidAmerican issued a Request for Proposals for evaluation, monitoring and evaluation (EM&V) services in late 2014. In July 2015, MidAmerican contracted with Tetra Tech to perform process and impact evaluations of its Iowa programs included in the 2014-2018 Plan. The following contractors will assist Tetra Tech in completing this EM&V work as outlined below:

Programs	Teams
Residential Behavioral	ILLUME
Commercial New Construction	TETRA TECH
Education	TETRA TECH/ILLUME
Upstream Retail Lighting	NMR
Residential Audit	TETRA TECH/GDS
Residential Equipment	TETRA TECH/GDS
Residential HVAC Tune-up	TETRA TECH/GDS
Industrial Partners	TETRA TECH/MICHAELS
Residential Low Income	TETRA TECH
Commercial Energy Solution (CES)	TETRA TECH/MICHAELS
Nonresidential Equipment	TETRA TECH/MICHAELS
Appliance Recycling	TETRA TECH/GDS
Residential Load Management	TETRA TECH/GDS
Nonresidential Load Management	GDS/TETRA TECH

One of the first key EM&V activities undertaken was developing MidAmerican's three-year Strategic Evaluation Plan (SEP). This strategic plan focuses on prioritizing programs and measures to be evaluated during the 2014-2018 Plan. This exercise also identified cross-program efforts that may increase efficiencies and consistency in evaluation methods and results.

MidAmerican collaborated with Iowa stakeholders throughout the SEP development process and included additional evaluation as a result of that collaboration. In particular, Tetra Tech will be conducting additional nonparticipant research as well as collecting market indicators to determine what the standard market practice is for certain technologies in MidAmerican's service territory, as requested by the Iowa Utilities Board (Board).

The following schedule was created to outline when each program's evaluation will start. Some changes may be necessary to this schedule based on other activities or initiatives that may begin in 2016. MidAmerican anticipates draft reports being available approximately seven months after the program's evaluation kick-off month shown below:

Programs	Evaluation Kick-off Month
Residential Behavioral	October, Annually
Commercial New Construction	October, 2015
Education	October, 2015
Upstream Retail Lighting	December, 2015
Residential Assessment	March, 2016
Residential Equipment	March, 2016
Residential HVAC Tune-up	April, 2016
Residential New Construction	May, 2016
Industrial Partners	March, 2016
Low Income	May, 2016
Multifamily Housing	June, 2016
Commercial Assessment	June, 2016

Programs	Evaluation Kick-off Month
Agriculture	August, 2016
Trees	August, 2016

Several program evaluation plans are underway for programs with kick-off dates prior to February 2016. Substantial data collection is included to support these program-level evaluations, and MidAmerican has engaged Iowa stakeholders in reviewing program-level detailed evaluation plans.

Overarching process and impact activities that will be implemented as part of the program evaluations include:

- Program and implementation staff interviews. Tetra Tech team members will interview relevant MidAmerican product manager(s) and implementation staff to gain a better understanding of the program design and delivery, discuss program successes and challenges, and identify and prioritize researchable issues for the evaluation.
- Participant customer interviews. Each program's evaluation will include program participant interviews. The Tetra Tech team will use the interview findings to inform both the process and impact evaluations. Participant interviews will capture customer satisfaction with the program and with MidAmerican, as well as assess program effectiveness in terms of increased awareness.
- Market actor interviews. The Tetra Tech team will conduct interviews with participating market actors (trade allies) to collect data on program awareness, factors affecting participation, and information regarding standard practice and program impacts on those sales and recommendation practices.

- Database review. The Tetra Tech team will review each program's tracking system, reported savings, and any documentation. They will compare all documentation and verify consistency, and will verify that deemed and custom savings algorithms have been applied appropriately by replicating savings calculations for a sample of projects.
- Net-to-Gross (NTG) assessment. The evaluation will follow the NTG analysis provisions outlined in the Three-Year Strategic Evaluation Plan. For the Iowa energy efficiency programs, MidAmerican started discussions with Tetra Tech to determine which programs and measures should receive a NTG assessment in this evaluation cycle. Gross savings will be determined from the desk audit reviews.
- Savings review. The Tetra Tech team will review the savings algorithms and assess the reasonableness of the energy and demand savings for each program by comparing the algorithms used between projects and to industry best practices.
- Desk review. As applicable, the Tetra Tech team will review and compare project level energy savings methods and assumptions to assess and provide recommendations regarding the use of project level documentation, M&V, and the use of code- and market-based baseline assumptions.
- Calculating savings. The Tetra Tech team will calculate gross savings values for each sampled point and develop realization rates (the ratio between evaluated and reported savings). These realization rates will then be applied to the entire participant population in order to reflect the program's savings estimates. In response to stakeholder input, Tetra Tech will also monitor the status of the Clean Power Plan guidelines and incorporate them into its calculations as appropriate.
- Reporting. The Tetra Tech team will provide a final report that documents the

program design, background, methods, key findings, and process recommendations. The report will also include a market transformation section that summarizes market response indicators collected as part of this evaluation (an Iowa stakeholder suggestion). Additionally, the report will document sources for claimed (ex-ante) impact results, verified and net savings, and recommendations for measure and program level savings adjustments and process adjustments.

Tetra Tech plans to complete a total of 2,880 participating customer surveys, 625 nonparticipating customer surveys, 238 trade ally surveys, and 50 site visits for this evaluation cycle. These counts may shift based on program-specific planning activities. See Table 1 for a summary of all planned process and impact data collection evaluation activities.

Table 1. Overview of Initial Program-Level EM&V Activities[2]

Data Collection Activity by Program		Process						Impact					
		Participating Customer Surveys	Nonparticipant Surveys	Staff Interviews	Trade Ally Interviews	Materials Review	Secondary Research	Database and Savings Algorithms Review	Engineering Review and Validation	On-site Verification	Energy Simulation	Billing Analysis	Metering
Residential	Res Equipment	700	45	8	40	Yes	Yes	Yes	90	0	No	No	0
	Res Assessment	280	45	2	15	Yes	Yes	Yes	90	0	No	No	0
	Res New Construction	110	45	2	15	Yes	Yes	Yes	80	0	No	No	0
	Res Behavior	140	45	3	0	Yes	Yes	Yes	0	0	No	Yes	0
	Res LM	140	45	4	5	Yes	Yes	Yes	90	0	No	No	0
	Res HVAC Tune-up	140	45	2	20	Yes	Yes	Yes	90	0	No	No	0
Nonresidential	Nonres Equip/ Custom	420	42	3	40	Yes	Yes	Yes	90	20	No	No	0
	Comm Assessment	280	42	3	20	Yes	Yes	Yes	90	0	No	No	0
	Nonres Energy Analysis/ Industrial Partners	25	42	2	10	Yes	Yes	Yes	35	10	No	No	0
	Comm New Construction	30	42	3	15	Yes	Yes	Yes	30	0	Yes	No	0
	Nonres LM	10	42	2	0	Yes	Yes	Yes	30	0	No	No	0
Multiple Sectors	Appliance Recycling	280	45	2	0	Yes	Yes	Yes	40	0	No	No	0
	Upstream Retail Lighting	0	45	3	10	Yes	Yes	Yes	Yes	0	No	No	0
	Low Income	140	0	2	10	Yes	Yes	Yes	10	0	No	No	0
	MF Housing	50	0	4	5	Yes	Yes	Yes	40	20	No	No	0
	Ag	15	10	4	10	Yes	Yes	Yes	90	0	No	No	0
	Education	70	45	2	20	Yes	Yes	Yes	0	0	No	No	0
	Trees	50	0	2	3	Yes	Yes	Yes	0	0	No	No	0

[2] Numbers reflected in red are survey add-ons in response to Iowa Stakeholder recommendations.

Settlement Agreement Updates

MidAmerican continued its effort in 2015 to address and implement the additional plan commitments included in the Settlement Agreement with its stakeholders. During the 2015 Fall Operations meeting held on November 5, 2015, MidAmerican provided stakeholders with a progress report for each of the items included within the Settlement Agreement. Exhibit I includes the progress report and provides a summary of MidAmerican's progress toward each item in the Settlement Agreement.

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 appliance measures. Rebates for heating and cooling equipment are conditioned on quality installation by a System Adjustment & Verified Efficiency (SAVE) certified contractor.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Residential Equipment program were 19,915,097 kWh and 2,377,936 therms respectively. These figures are 91 percent of total 2015 planned electric savings and 96 percent of total 2015 planned gas savings. Total spending for the Residential Equipment program was $24,454,177, which is 110 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

Residential Equipment program highlights for 2015 include the following:

- The Residential Equipment program showed growth from 2014 results in both electric and natural gas savings, as the contractor base became more familiar with the SAVE installation requirements.
- 529 ground-source heat-pumps were rebated in 2015, which was 91 percent of the planned goal. Ground source heat pump and quality installation rebates provided nearly 34 percent of the achieved total electric savings for the Residential Equipment program.
- 8,277 air conditioners were rebated in 2015, which was 156 percent of planned goal. Air conditioner and quality installation rebates provided 19 percent of the achieved

total electric savings for the Residential Equipment program.

- 11,103 natural gas furnaces were rebated in 2015, which was 90 percent of the planned goal. Natural gas furnace and quality installation rebates provided 88 percent of the achieved total natural gas savings for the Residential Equipment program.

Key Program Challenges in 2015

The reasons for electric and natural gas savings not meeting planned levels are as follows:

- The lower than planned participation in ground source and air source heat pumps rebates combined with the associated reductions in energy savings from installation practices accounted for all of the difference from planned electric savings.
- The lower than planned participation in natural gas furnaces combined with the associated reductions in energy savings from installation practices accounted for the difference from planned natural gas savings.

Promotion

MidAmerican promoted the Residential Equipment program by featuring the program in:

- A bill insert in January.
- A special article in the February edition of the *At Your Service* newsletter.
- The March edition of the E-Newsletter, an email communication to customers.
- Social media, including Twitter in May.
- One-on-one meetings in 122 appliance stores promoting the program in the spring and fall.
- Emails to participating HVAC contractors throughout the summer to ensure understanding of program requirements to qualify for air conditioner rebates and the

deadlines for HVAC SAVE testing to be completed.

- One-on-one field mentoring with HVAC trade allies to fully explain SAVE measurement techniques.
- Print advertising including the Council Bluffs Daily Nonpareil, Humboldt Independent, Iowa City Press Citizen, Sioux City Journal, Siouxland Magazine, Storm Lake Times, Quad City Times, and Welcome Home.
- Radio and television advertisements throughout the year.

Key Activities Planned in 2016

- MidAmerican will continue to encourage contractors to participate through the promotional methods outlined above.
- MidAmerican will finalize its program design for a smart thermostats pilot to be conducted starting in 2017 that will provide both demand side management and demand response participation opportunities to MidAmerican customers.

Residential Assessment

The Residential Assessment program promotes efficiency strategies for existing residential customers. The program provides online energy assessments, more extensive on-site energy assessments, direct installation of low-cost efficiency measures, and recommendations for additional measures. Customers participating in the on-site energy assessment are eligible for a Bonus Rebate when at least three recommended measures are installed within 12 months after the assessment.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Residential Assessment program were 4,210,337 kWh and 797,669 therms respectively. These results are 160 percent of total 2015 planned electric savings and 147 percent of total 2015 planned gas savings. Total spending for the Residential Assessment program was $8,193,282, which was 159 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

Residential Assessment program highlights for 2015 include the following:

- 6,596 on-site assessments were completed in 2015, which was 15 percent higher than projected.
- 8,928 insulation measures were completed, which was 219 percent higher than projected.
- 5,563 LEDs and 41,592 CFLs were directly installed, which was 8 percent higher than projected. Lighting measures installed during the assessment provided 36 percent of the total electric savings achieved by this program.
- 280 customers participated in the Bonus Rebates program. This was a 264 percent increase over 2014 participation.

- The program implementation contractor was able to offer HomeChecks to all eligible customers in less than four weeks after the initial customer request.
- In the Neighborhood Outreach pilot, MidAmerican partnered with the City of Urbandale to provide insulation incentives along with the City of Urbandale's zero interest rate revolving loan program. The project was kicked off in August 2015. The City of Urbandale identified the eligible geographic area and target marketed the program to area residents. MidAmerican has completed five assessments for customers enrolling in this program.

Key Program Challenges in 2015

- There was a 62 percent reduction in installed faucet aerators and a 40 percent reduction in installed low flow showerheads from 2014. Many homes either had a water saving device installed before the assessment or refused the equipment due to aesthetic reasons.
- MidAmerican learned that the contractor, in some instances, left direct install measures with the customer to install at a later date. Since this is not the intent of the program, MidAmerican clarified the procedures with the contractor and added an authorization/acknowledgement on the HomeCheck assessment form to show the customer authorizing and acknowledging that all measures were installed.

Promotion

MidAmerican promoted the Residential Assessment program as follows:

- Television advertising was run in Des Moines, Cedar Rapids, Quad Cities and Sioux City on both broadcast and cable channels. This advertising was in rotation for the entire year.

- Radio advertising focusing on HomeCheck was run for the entire year in Sioux City, Des Moines, Waterloo, Cedar Rapids, Quad Cities, Shenandoah, and Carroll.
- A press release on heating season tips with a focus on HomeCheck was picked up in Sioux City, Cherokee, Des Moines and the Quad Cities in January.
- The MidAmerican website featured HomeCheck on the main energy efficiency page from January through July.
- The HomeCheck program was featured in print advertising in various newspapers and publications in key markets including:
    - Storm Lake, Quad Cities, and Des Moines in February
    - Iowa City, Council Bluffs, Ottumwa, Oakland, Adel, Nashua, Gowrie, Indianola, Jesup, and Storm Lake in March
    - Cedar Rapids, Quad Cities, Des Moines, Dubuque, Iowa City, Sioux City, Waterloo, and Mason City in April
    - Quad Cities in June
    - Iowa City, Waterloo, Gowrie, Indianola, Jesup, Oakland, Council Bluffs, Dallas County, Fort Dodge, Nashua, Oskaloosa, Ottumwa, Denison, and Storm Lake in August
    - Quad Cities and Emmetsburg in September
    - Iowa City, Sioux City, Dallas County, Sioux City, Dallas County, Oskaloosa, Quad Cities and Denison in October
- In February, an article on HomeCheck and the HomeCheck bonus was included in the MidAmerican newsletter At Your Service. This newsletter is sent periodically to customers in their bills.
- HomeCheck and the HomeCheck bonus were featured in the Business Advantage

newsletter to commercial customers in February.

- HomeCheck was the focus at several trade shows including:
    - John Deere Health Fair on February 4, 2015
    - Greater Iowa City area Home Builders Association on February 13-14, 2016
    - Siouxland Home Show on February 26 to March 1, 2015
    - Master Builders of Iowa Conference on February 24-25, 2015
    - Sheldon Home Show on March 28, 2015
    - In October, MidAmerican discussed the HomeCheck program at a speaking event at Northside Library in Urbandale
    - HomeCheck was a primary program promoted at the MidAmerican booth during the Iowa Association of Energy Efficiency Summit in Altoona on November 3-4, 2015
- HomeCheck was included in the MidAmerican e-newsletter in March. The e-newsletter is sent to customers who opt-in to receive communications electronically.
- Energy specialists used the slower spring and summer months to canvas qualified neighborhoods/homes with promotional door hangers advertising the program.
- The Quad Cities television station WQAD ran a story on how to get your home ready for summer. The story featured a HomeCheck assessment by following an energy expert during an assessment. The story ran on the 5:00 pm and 6:00 pm evening news on April 20, 2015.
- Bill inserts featuring HomeCheck were sent to customers in April.
- HomeCheck was promoted through social media in June on Facebook and Twitter and in October on Twitter.
- In May, HomeCheck was featured in the internal MidAmerican employee newsletter,

PowerSource.

- HomeCheck was mentioned during the Iowa State Fair on a WHO radio station interview on August 15 and 22, 2015.

Key Activities Planned in 2016

- MidAmerican will update and enhance the HomeCheck online assessment utilizing the Opower home energy assessment tool.
- Specialty CFLs will be removed from the program and the quantity of direct install LEDs available to qualifying customers will be increased.

Residential New Construction

The Residential New Construction program promotes the construction of energy efficient new housing; addressing both the building shell and the equipment used inside the home. The program provides builders with financial incentives to offset the higher cost of energy efficient construction. The program is similar to the previous plan's program. However, the Builder Option Program (BOP) option was eliminated and the Advanced Builder Option Program (ABOP) option was simplified to help facilitate increased levels of participation.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Residential New Construction program were 2,980,409 kWh and 883,052 therms respectively. These figures were 62 percent of total 2015 planned electric savings and 216 percent of total 2015 planned gas savings. Total spending for the Residential New Construction program was $3,970,123, which was 66 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

The Residential New Construction program highlights for 2015 include the following:

- 767 ENERGY STAR homes were rebated in 2015, which was 59 percent of planned levels. ENERGY STAR homes rebated provided 78 percent of the achieved total electric savings and 51 percent of the achieved total gas savings for the program. Additionally, 95 percent of the electric heated and electric cooling-only homes enrolled in the program were enrolled under the ENERGY STAR option.
- 752 ABOP homes were rebated in 2015, which was 94 percent of planned levels. ABOP homes rebated provided 22 percent of the achieved total electric savings and 49 percent of the achieved total gas savings for the Residential New Construction

program.

Key Program Challenges in 2015

There were fewer electric homes enrolled in the program than planned. The reasons for fewer electric homes enrolled than planned are attributed to:

- Overall program participation was less than planned. Based on builder feedback, it appears that many builders are choosing to pursue the Residential Equipment program rebates instead of the more difficult comprehensive Residential New Construction homes rebates.
- There were fewer than anticipated ground-source heat pump and air-source heat pump homes enrolled in the program.

Promotion

MidAmerican promoted the Residential New Construction program by featuring the program in:

- Print advertising including Cedar Rapids HBA Newsletter, Cedar Rapids Parade of Homes, Cedar Rapids Gazette, Des Moines Home Builders Association directory, Iowa City Builder News, Master Builders of Iowa, Quad City Hammer and Nail Magazine and Waterloo Parade of Homes.
- The June edition of PowerSource, an internal communications newsletter.
- Promotional booths at the following events: Home Builders Association in Iowa City, Home Builders Association in Sheldon and Siouxland Home Show.
- Sponsorship of the Call the Shots builder training events in coordination with Alliant Energy in Ames, Cedar Rapids and Cedar Falls.

Key Activities Planned in 2016

- MidAmerican intends to continue to encourage builders to participate through on-going trade ally outreach activities.
- MidAmerican will continue to market both the ENERGY STAR and ABOP options and monitor which option is preferred by the builders.
- MidAmerican will continue gathering feedback from the builders, raters and other trade allies to guide the development of program enhancements.
- MidAmerican will examine the current comparative rebate levels between the Residential Equipment and Residential New Construction programs to determine if a change in rebate levels is needed to encourage additional electric participation in the Residential New Construction program.
- MidAmerican will continue its sponsorship of the Next Level Builder Training events in coordination with Alliant Energy in Ames, Altoona, Cedar Rapids and Council Bluffs.

Residential Behavioral

The Residential Behavior 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 cause them to take action to bring their energy usage in line with similar homes. Customers participating in the program receive six paper reports a year 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.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Residential Behavioral program were 28,627,768 kWh and 938,298 therms respectively. These figures were 63 percent of total 2015 planned electric savings and 77 percent of total 2015 planned gas savings. Total spending for the Residential Behavioral program was $1,875,192 which is 100 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

Residential Behavioral program highlights for 2015 include the following:

- The 2015 year ended with over 143,000 customers active in the program.
- 1,023,185 Home Energy Reports were mailed to Iowa customers, and 16,393 emails were sent to customers who opted-in to the monthly email version of the report.
- The original pilot customers' cumulative opt out rate is 0.9 percent, which is below the program implementation contractor's national average. The program expansion customers' opt out rate is 0.2 percent, which is significantly lower than the national average.
- Setting an efficient thermostat temperature can have a noticeable impact on energy usage, therefore during both the summer and winter seasons in 2015 the Home Energy Reports specifically promoted efficient thermostat settings. These messages were reinforced by the addition of a door hanger to the Home Energy Report mailing in each season which provided customers with a tangible reminder of the efficient set points.

Key Program Challenges in 2015

The reasons for electric and natural gas savings not meeting planned levels are as follows:

- Initial delays in launching the program in 2014 have had lingering effects on the savings rate of the program, however overall savings have been rising consistently.
- The region experienced a mild summer and winter, which had an impact on savings.
- In 2015, MidAmerican identified that energy savings for some aspects of the Home Energy Report program were falling short of forecasted targets. Part of the reason for

the shortfall in savings was due to higher than expected attrition rate from the program due to move-outs across MidAmerican's service territory.

Promotion

- The Home Energy Report is an "opt out" rather than "opt in" program. Therefore, no promotional efforts were utilized to obtain participants. However, the 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 saving planning and provides additional strategies and tips.
- As part of the summer and winter campaigns, thermostat set points and reinforcing supplemental messaging was specifically promoted to drive behavior change during the peak seasons.

Key Activities Planned in 2016

- MidAmerican will plan and launch a refill of more than 40,000 randomized customers in January 2016 to boost participation and savings in the state.
- The next generation of the program implementer's online assessment is planned for launch during the summer, providing an enhanced online engagement experience for customers.
- Additionally, the next generation of print and email Home Energy Report design is planned for migration in fall of 2016, which will provide distinct advantages from the current design such as:
    - A highly personalized report that is targeted to deliver increases in energy efficiency program enrollment, promote new products, and drive digital engagement.

- A freshly designed report with improved usability for customers.
- Incorporation of a dynamic customer experience to target the moments that matter for customers (e.g. seasonal change).

Residential Load Management

SummerSaver^{SM} 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 is forecasting 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.

A relatively mild summer did not warrant the need for the Midcontinent Independent System Operator, Inc. (MISO) or MidAmerican to call for a SummerSaver cycling event in 2015. However all participants were required to participate in a certification event to verify the programs' ability to reduce load. The temperatures on the day of certification were significantly cooler than typical for a day of program operation. Therefore, no annual peak demand or energy savings were recorded in 2015.

2015 Results Compared to Plan and Budget

Total spending for the SummerSaver^{SM} program was $3,064,028, which is 103 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 62,085 customers participated in the SummerSaver program.
- 63,107 LCRs were utilized.
- 1,767 aged LCRs were replaced, compared to the 2015 goal of 1,500.

- During 2015, 2,893 new LCRs were added and 2,510 were removed, resulting in a net gain of 383 units, which is 128 percent of the net gain goal of 300.
- MidAmerican terminated contracts with four radio stations that provided FM subcarrier signals to control the older style FM LCR units. These units are being replaced by newer technology pager LCRs.
- Participating customers received approximately $1,907,860 in rebates in the form of bill credits on their October utility bills for participating in 2015.
- One certification cycling event was successfully conducted on August 27.
- No cycling events were conducted at the direction of MISO or MidAmerican's energy supply management department.

Key Program Challenges in 2015

- A relatively cool summer in 2015 required only one certification event to be called, resulting in zero kWh savings.

Promotion

- Solicitation brochures were sent to eligible customers in February 2015.
- The program was promoted to customers who moved using *Welcome Home* and *Welcome Back* cards. *Welcome Home* 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. *Welcome Back* cards are sent to customers that previously were part of the program and moved to a new home that does not have an LCR. The card reminds the customer of the benefits of the program and encourages them to rejoin the program.

- SummerSaver^{SM} was one of the programs promoted in MidAmerican's suite of television commercials related to energy efficiency programs.

Key Activities Planned in 2016

- MidAmerican plans to replace 1,500 aged LCRs along with the older style FM LCRs in the areas that were covered by the four radio stations terminated during the year.
- MidAmerican plans to solicit new participants through print and radio ads as well as customer newsletters.
- MidAmerican plans to conduct an electric load research survey to determine customers' consumption during peak events. The SummerSaver^{SM} sample data will be used to help MidAmerican better understand the benefits the SummerSaver^{SM} program provides to all residential customers.

Residential HVAC Tune-Up

The new Residential HVAC Tune-Up program promotes the proper maintenance and operation of heating and cooling systems by residential customers in existing homes. There are two paths to participation:

- The equipment tune-up measure is available to customers during their regularly scheduled maintenance visit by participating contractors.
- The ductwork improvement measure is available to customers during an equipment tune-up or when installing a new piece of equipment with a participating contractor.

The program provides customers with rebates to offset the cost of increasing the efficiency of existing equipment and ductwork. Targeted equipment includes heating and cooling equipment and ductwork.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Residential HVAC Tune-Up program were 23,135 kWh and 5,571, therms respectively. These figures represent four percent of total 2015 planned electric savings and seven percent of total 2015 planned gas savings. Total spending for the Residential HVAC Tune-Up program was $33,349, which was three percent of the 2015 Plan.

Key Program Successes and Activities in 2015

HVAC Tune Up program highlights for 2015 include the following:

- 39 ductwork improvement projects were completed.
- The average natural gas savings were higher than expected from these ductwork improvement projects.

Key Program Challenges in 2015

The reasons electric and natural gas planned savings levels were not met are as follows:

- There were only 11 completed equipment tune-ups in 2015. Equipment tune-ups account for 83 percent of planned electric savings and 77 percent of planned gas savings.
- The program requires SAVE performance testing that shows a measurable improvement. At this time, the HVAC industry is not able to find enough qualified technicians to perform the current volume of traditional maintenance tune ups, so it is very difficult to adopt the more labor intensive SAVE performance testing into their business practices. This is in part because the SAVE performance requirements are beyond the scope of the traditional maintenance tune-up. To participate in the program, the HVAC contractors must significantly change their routine procedures and schedule extra time for service calls. Contractors have not decided to adopt these changes into their existing procedures. Their current business models do not include a performance testing component. HVAC contractors find it to be more profitable to continue concentrating on traditional maintenance tune-ups. One major barrier to adoption of SAVE performance testing is the extra time required. A trained HVAC contractor can perform up to eight traditional maintenance tune-ups in one day and only about two or three SAVE performance tests in a day.
- In the fall of 2015, MidAmerican offered a limited time promotion to spur program furnace equipment tune-up participation. Based on trade ally feedback, dealers did not feel confident that they would be able to show the required minimum performance improvement required to qualify for a rebate. The promotion sought to minimize this concern by offering prorated rebates based upon measured

improvements. Additionally, the promotion provided $100 incentive directly to the dealer for participating in the promotion. The promotion was not successful in gaining trade ally participation.

- Despite MidAmerican's promotional activities, few customers were asking for contractors to conduct the testing required for the HVAC Tune-Up rebates. Those customers who did try to participate reported difficulty finding participating contractors.

Promotion

MidAmerican promoted the HVAC Tune-Up program by featuring the program in:

- Social media including Twitter in January.
- Bill inserts in January and October.
- One-on-one field mentoring with HVAC trade allies throughout the year to evaluate their understanding and skill set associated with the SAVE measurement techniques that are applied in this program.
- Emails sent to participating HVAC contractors to enhance their understanding and awareness of the HVAC Tune-Up fall promotion.

Key Activities Planned in 2016

- Given the current trends, it appears unlikely that the HVAC contractors will participate in the HVAC Tune-Up Program by modifying their business models to show improvement in the equipment tune up measures and impacts in 2016. MidAmerican will seek additional feedback from the HVAC contractors to guide the development of program enhancements possibly towards encouraging ductwork modifications. Any changes will be announced before the 2016 fall heating season.

- MidAmerican intends to continue to encourage contractors to participate through additional trade ally outreach activities and in-field mentoring.

Nonresidential Equipment

The Nonresidential Equipment program promotes the purchase of individual pieces of prescribed high-efficiency equipment by commercial and industrial customers in both existing and new facilities. The program addresses the replacement and first-time purchase markets for all measures and primarily the retrofit market for lighting. Participation is largely dealer-driven; that is, equipment dealers promote energy-efficient measures when customers are looking to buy new or replacement equipment. The program offers rebates for a wide range of lighting, heating, ventilation, air conditioning, motors and variable-speed drives, commercial kitchen equipment, and building shell measures. The Nonresidential Equipment program includes a "custom track" to allow customers to implement new technologies and alternate strategies not currently eligible for prescriptive rebates. Starting in 2014, strategic efforts were made with commercial and industrial customers to encourage them to participate in the comprehensive assessment programs. Instead of individual nonresidential equipment projects, the comprehensive approach examines all energy saving strategies within the facility to promote further energy savings. With the rapid development of light emitting diodes (LEDs) designed for nonresidential installations, the program has seen a substantial increase in this efficient lighting technology. Linear fluorescents and high-intensity discharge systems are rapidly giving way to LED technology. LED pricing continues to fall at the same time efficacy and LED photometries are improving.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Nonresidential Equipment program in 2015 were 55,337,446 kWh and 798,600 therms respectively. These figures represent 92 percent of total 2015 planned electric savings and 95 percent of total 2015 planned gas savings. Total spending for the Nonresidential Equipment program was $12,270,692, which was 131 percent of the 2015

Plan.

Program Activities in 2015

- 375,442 lighting measures were rebated in 2015, which was 290 percent of the planned goal. Lighting measures provided 84 percent of the achieved total electric savings for the Nonresidential Equipment program. LED lighting measures accounted for 35,030,200 kWh or 63 percent of electric savings achieved by the program. Additionally, the program provided customer incentives for LED lighting projects totaling $5,587,364.
- 3,193 HVAC measures were rebated in 2015, which was 151 percent of the planned goal. Electric HVAC measures provided 5 percent of the achieved total electric savings for the Nonresidential Equipment program.
- 1,011 high-efficiency furnaces were rebated in 2015, which was 125 percent of the planned goal. Gas HVAC measures including natural gas furnaces provided 68 percent of the achieved total gas savings; furnace measures themselves provided 55 percent.
- 101 variable-speed drives were rebated in 2015, which was 28 percent of the planned goal.
- 7,606 custom measures were rebated in 2015, of which 6,832 were LED custom lighting measures. These LED custom lighting measures accounted for 832,163 kWh and provided customer incentives totaling $233,805.

Key Program Challenges in 2015

- Rapidly changing LED technology continued to be a challenge. LED technology is gaining significant traction, replacing high-intensity discharge and linear fluorescent

technologies. Keeping up with this fast-moving marketplace is a challenge. LED Lighting measure rebates accounted for 65 percent of the program's total electric incentive spending.

- In late fall, MidAmerican announced that prescriptive incentives associated with LED lighting projects would be reduced in 2016. As a result, customers and trade allies that previously planned to have multiple phases of lighting upgrades in 2015 and 2016 rushed to purchase and install LED fixtures prior to December 31, 2015, in order to qualify for 2015 incentives. In December alone, the Nonresidential Equipment program provided incentives totaling over $565,000 for LED lighting projects.
- Efficient electric motor participation continued to be a challenge due to the provisions of the Energy Independence and Security Act (EISA) of 2007. Many motor distributors only stocked and promoted the new code NEMA Premium units and did not stock NEMA band motors more efficient than the NEMA Premium motors. The market continued to slowly migrate to these more efficient motors. Customers seem to be satisfied with NEMA Premium efficiencies and have yet to embrace the higher efficiency level above NEMA Premium.

Promotion

- MidAmerican participated in various trade shows and other events for end users that are sponsored by industry and trade associations.
- MidAmerican promoted the Nonresidential Equipment program by placing educational articles and information in the utility's existing communication channels, including articles in the *Key Account Manager* eNewsletter, *Business Advantage*

eNewsletter and in social media posts throughout the year.

Key Activities Planned in 2016

- With the reduction to its LED prescriptive rebates in 2016, MidAmerican is anticipating the program will see a slightly lower level of participation in LED projects and will realize approximately 30 percent reduction in incentives paid to customers for these LED projects. However, MidAmerican does project that in 2016 the Nonresidential Equipment program will have electric spending and savings levels above planned goals.
- MidAmerican's Trade Ally Ambassadors will provide outreach to distributors and contractors to identify ways to increase customer awareness of and participation in the Nonresidential Equipment program. MidAmerican will continue conducting trade ally events promoting program awareness and networking with contractors.
- MidAmerican will seek opportunities to speak to business and civic groups promoting all of MidAmerican's programs, including the Nonresidential Equipment program.
- MidAmerican will continue with promotional activities for the Nonresidential Equipment program via print and television media outlets, including social media outreach, and customer and employee newsletters.
- MidAmerican will continue working with external parties like the Consortium for Energy Efficiency (CEE), DesignLights Consortium (DLC) and the Midwest Energy Efficiency Alliance (MEEA) to stay informed regarding changing equipment specifications and technical updates related to commercial kitchen equipment, motors and motor systems, advanced lighting technologies, and HVAC.

- In an effort to increase participation in efficient motors, MidAmerican changed the 2015 efficiency requirement from one NEMA band above NEMA Premium to an efficiency greater than the code-based NEMA Premium units for 2016. Motor manufacturers have been slow to provide available motor inventory at the one band higher efficiency level.

Commercial Energy Solutions

The Commercial Energy Solutions (CES) program promotes comprehensive energy efficiency for existing commercial buildings, regardless of size. The program offers services through two program tracks, tailored to the unique needs of commercial customers; Assessments and Building Optimization. 2015 was the first full year for this program. During 2015, trade allies became more familiar with Commercial Energy Solutions and began using the program as a tool to develop stronger customer relationships. The information provided to customers in the assessment reports often validated the projects proposed by trade allies and provided a starting point for more potential energy saving projects. During the annual trade ally meetings in November and December of 2015, MidAmerican included sessions that explained the CES energy assessment offerings and how trade allies could leverage assessments to increase customer satisfaction.

The CES program offerings for building optimization, specifically express building tune-up (EBTU) and retro-commissioning (RCX) began to show some activity. These program components are delivered through a network of local trade ally service providers that have the capabilities to become qualified technical service providers and retro-commissioning service providers. To date, the program has qualified 26 providers in Iowa, and 11 in surrounding states. Towards the end of 2015, the Express Building Tune-Up offering began to gain traction in the marketplace. While the year ended with lesser participation than anticipated, this was a positive sign for 2016 since more service providers and customers were able to get experience with the EBTU product.

2015 Results Compared to Plan and Budget

The total electric and gas savings for the Commercial Energy Solutions program in 2015 were 25,531,322 kWh and 392,105 therms respectively. These figures represent 285 percent of total 2015 planned electric savings and 94 percent of total 2015 planned gas savings. The 2015 Commercial Energy Solutions program exceeded the 2014 Small Commercial Energy Assessment program electric savings by 305 percent and gas savings by 222 percent. Total spending for the Commercial Energy Solutions program was $12,390,072, which was 164 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 2,333 electric and gas assessments were completed, which was 137 percent of planned goal.
- 213,253 lighting measures were installed, which was 789 percent of the planned goal. Lighting measures provided 85 percent of the achieved total electric savings for the CES program. LED measures combined for $5,681,806 in customer incentives and 18,864,121 kWh in savings, which was 74 percent of the achieved total electric savings.
- 668 electric HVAC measures were installed, which was 264 percent of the planned goal.
- 445 gas HVAC measures were installed, which was 156 percent of the planned goal. HVAC measures provided 31 percent of the achieved total natural gas savings for the CES program.

- MidAmerican collaborated with the Iowa Economic Development Authority (IEDA) to develop statewide energy initiatives in 2015. This included the B3 Benchmarking and City Energy Management programs.

Key Program Challenges in 2015

- Building Optimization services experienced slower than expected growth.
- Small businesses are often unable to act on recommended upgrades from assessments due to budgetary constraints and lack of energy expertise.
- The continuously evolving LED market posed challenges for the program and for customers. While the new LED product offerings were welcome, the increase in available technologies made it difficult for commercial customers to understand which products would best meet their needs and whether the project would qualify for a prescriptive or a custom incentive.

Small Business Lighting Pilot

In July 2015, the Small Business Lighting Pilot program was launched in the Des Moines and Ft. Dodge markets. This program offering is directed towards commercial customers that consume less than 500,000 kWh annually and occupy less than 50,000 square feet. The rebate is paid directly to a qualified Lighting Service Provider (LSP) thus reducing the customer's out-of-pocket costs and providing a stronger incentive for customers to complete upgrades sooner. Contractors enroll to be LSPs by completing training on the program offering, requirements and software tools.

In total, 15 contractors signed up to be LSPs in 2015 and completed 14 projects which saved roughly 300,000 kWh of electric consumption and provided $54,000 in rebates for small commercial customers. MidAmerican plans to continue to offer this pilot throughout 2016 and

may consider expanding this pilot statewide starting in 2017.

Promotion

MidAmerican promoted the CES in 2015 through:

- Media ads, business group outreach and postcard mailings.
- Print ads placed in the Sioux City Business Journal, Corridor Business Journal, and Des Moines Business Record. Additionally, in September, media ads were placed in the Sioux City Journal, Council Bluffs Nonpareil, and Oakland Herald.
- MidAmerican's corporate communication assets were leveraged throughout 2015 to promote the program including:
    - Articles in the February, April, May and September *Business Advantage* eNewsletters and the March issue of the Key Account Manager eNewsletter.
    - Business group outreach focused on getting more awareness of CES among smaller commercial customers.
    - A presentation at the GoGreen conference in May, and hosting a table at the Iowa Downtown Summit in August. CES presentations were also given at the Bettendorf, Ottumwa and Sioux City Rotary Clubs. There were also articles published in the Bettendorf Business Network and Davenport Jaycees publications.
    - A series of five geo-targeted direct mail postcard campaigns during November 2014 and March, May, September and November 2015. Recipients of the postcards were small commercial customers who have not completed an energy assessment in the past five years.

Key Activities Planned in 2016

- MidAmerican will conduct one-on-one discussions with Qualified Service Providers (QSP) to gather feedback about the program's design, incentives and what may need to change in order to have greater participation in the program by QSPs.
- MidAmerican will enhance the promotional efforts around Building Optimization during energy assessments.
- MidAmerican will create a success stories flyer that incorporates quick snapshots of sector specific Express Building Tune-Up projects that can be used by QSPs when introducing the program offerings to their customers.
- MidAmerican will simplify the procedure for service providers by improving the calculation tool used to determine savings for Express Building Tune-Up.
- MidAmerican will develop a small assessment leave-behind flyer to better explain the bonus offering available to customers once an assessment is completed at their facility.

Nonresidential Energy Analysis Program (Industrial Partners)

The Nonresidential Energy Analysis (Industrial Partners) program continues to promote comprehensive efficiency strategies in existing industrial facilities through a no-cost scoping level, facility-wide energy assessment as well as assistance with detailed investment-grade studies. The program also offers an additional resource, an energy manager, who serves as a dedicated technical resource and program expert to help identify energy-saving opportunities and evaluate options, including capital improvement incentives to help maximize program value.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Nonresidential Energy Analysis program were 56,901,067 kWh and 128,660 therms respectively. These figures represent 250 percent of total 2015 planned electric savings and 75 percent of total 2015 planned gas savings. Total spending for the Industrial Partners program was $13,421,326 which was 135 percent of the 2015 Plan. LED lighting measures accounted for 17,549,309 kWh or 31 percent of electric savings achieved by the program. Additionally, the program provided incentives for LED lighting projects totaling $3,229,921.

Key Program Successes and Activities in 2015

- The program achieved over twice the electric savings goal for 2015, while electric spending for the program was maintained at 155 percent of the projected electric spending budget.
- Overall demand for program services was strong in 2015:
    - 41 energy assessments were conducted; 146 percent of the plan goal of 28.
    - 544 installed projects were reviewed; 181 percent of the plan goal of 301.

- The Industrial Partners program was awarded the Midwest Energy Efficiency Alliance Impact Award for the use of energy managers within its Industrial Partners program.
- The system optimization program offering was launched, two system optimization qualified service providers were approved and one system optimization study was preapproved to evaluate a large compressed air system.

Key Program Challenges in 2015

- Motivating natural gas-eligible facilities to implement gas-saving projects was difficult because of record low natural gas prices in Iowa. There was a marked reduction in the number of eligible gas-savings projects processed in 2015 compared to 2014. Experience has shown that industrial customers invest available capital earmarked for energy efficiency in projects that provide the greatest return on investment. Therefore, 2015's low natural gas prices likely redirected dollars that otherwise may have been used for natural gas-saving projects to electric-saving projects due to the more favorable economics (e.g., LED lighting upgrade).
- Because the largest consumers of natural gas in MidAmerican's service territory purchase transport natural gas (only about one third of managed accounts contribute to the natural gas energy efficiency cost recovery fund), it is difficult to identify and engage a sufficient number of eligible facilities to meet the gas savings goal.

Promotion

- The program was promoted by MidAmerican's network of key account managers and Nexant energy managers who personally:
    - Informed customers of the benefits of participation.
    - Delivered and explained energy efficiency materials to customers and explained annual program changes.
    - Assisted customers through the program process, including program application, energy assessment, energy efficiency action plan, project implementation and incentives stages.
- The program was further promoted through:
    - Conducting trade ally kickoff meetings at locations across MidAmerican's service territory to explain changes to the program, describe new program offerings and answer program questions.
    - Developing and distributing annual program materials to key trade allies.
- A combined heat and power fact sheet was developed for distribution at the fall trade ally meetings and as resource on the Industrial Partners website.

Key Activities Planned in 2016

- In order to meet the planned natural gas savings goal and budget, the Industrial Partners program strategy will target outreach to mid-sized, non-gas transport customers with high natural gas savings potential. The strategy will focus on motivating existing Industrial Partner participants to implement already identified, natural-gas savings projects. This strategy is expected to increase both the total

natural gas savings achieved by the program in 2016 and the natural gas incentive budget spending.

- MidAmerican will continue to work to further streamline the program process and increase customer satisfaction with the program.
- Key account managers and energy managers will continue to receive training to ensure understanding of program requirements and the resources available to them to help remove barriers to customer participation.
- The program also will continue to be promoted through quarterly articles in MidAmerican's internal Key Account eBiz and The Business Advantage electronic newsletters that are delivered to customers.

Commercial New Construction Program

The Commercial New Construction program continues to promote the design and construction of high-efficiency commercial buildings, including new building construction as well as major renovations of existing buildings. The objective of the program is to work in partnership with developers, architects, engineering firms and equipment contractors, and help influence projects during the design phase. Energy design assistance and construction incentives are offered to reduce market barriers to incorporating energy efficiency in construction projects. The program is delivered through the assistance of a program implementation contractor, The Weidt Group, who provides energy design assistance, project management and project completion verification. The program offers energy design services through five program tracks, tailored to the needs of different markets. The five tracks include:

- Track I – targets several building types up to 15,000 square feet that can be served effectively through an online energy modeling and decision-making tool.
- Track II – targets projects larger than 15,000 square feet interested in pursuing more standard energy efficiency strategies that are served effectively through an online energy modeling and decision-making tool.
- Track III – targets projects larger than 15,000 square feet interested in pursuing customized energy efficiency strategies.
- Track IV – targets projects interested in pursuing advanced energy efficiency strategies; supports strategies required for Leadership in Energy and Environmental Design (LEED®) – Optimize Energy Performance or ENERGY STAR.
- Track V – Ongoing Performance Track – this track is intended for projects that are exceeding expected energy use and are interested in additional technical and financial

assistance for meeting performance metrics two years or more after participation in the Commercial New Construction program.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Commercial New Construction program were 56,958,904 kWh and 396,627 therms respectively. These figures represent 182 percent of total 2015 planned electric savings and 99 percent of total 2015 planned gas savings. Total spending for the program was ($147,576), which was (1.71) percent of the 2015 Plan. The negative spending is a result of a timing difference between reversing an initial accrual entry and recording of actual payment to the customer. For example, MidAmerican accrued costs for a project two years ago. The payment was made in December 2014; however, the reversal of the accrual on the books did not happen until January 2015.

Key Program Success in 2015

- 72 projects were completed, 35 of which were large building projects over 50,000 square feet and 37 were small building projects.
- Record levels of program enrollment were achieved in 2015 with 91 new projects started in the program, 43 of which were large building projects over 50,000 square feet, and 48 were small building projects. New projects enrolling in 2015 were larger than in 2014 at 75,900 square feet on average. In comparison, the 61 new project enrollments in 2014 averaged 63,000 square feet.
- Projects enrolled in 2015 were an average of 75,900 square feet, with a total of 6.9 million square feet. In 2014, the average building size of new projects equaled 63,000 square feet, with a total of 3.8 million square feet enrolled.
- The education sector continued to show support for the program and strong

construction activity. Thirty-eight percent of the projects completed were K-12 or higher education related buildings.

- The Expanded New Construction Pilot program was launched in the last quarter of 2015 targeting new construction project types that typically do not enroll in the program. The goal of the pilot program is to encourage higher levels of program participation.
- Several notable projects were completed with electric savings significantly above the baseline, including a large senior living facility, a data center, a large university dormitory, school and education buildings, penitentiaries, and multi-family, retail, and city improvement projects.

Key Program Challenges in 2015

- Despite the completion of a few very large projects, the average size of a completed building continues to be lower than projects enrolled prior to the 2009 recession. The average building size was 68,000 square feet from 2011 to 2014, compared to 102,000 square feet from 2001 to 2010. In 2015, 72 projects were completed with an average square footage of 72,600.
- The Iowa energy code changed June 1, 2014. As a result, a larger number of projects are achieving a lower savings percentage and receiving incentives on the lower end of the scale. MidAmerican experienced an increase in the number of low savings projects (projects that fall below the required 15 percent) with the new code, particularly on the gas side. In 2016, the program will continue to research possible program effects and consider program adjustments. The program must react early to such changes as the pipeline averages two to three years for a participant to complete

the Commercial New Construction process through the design and construction of their building.

Promotion

- Joint-utility promotional efforts with Interstate Power and Light Company (IPL) and Black Hills Energy Company (BHE) included:
    - Ads for the winter, spring, summer and fall issues of *ia architect* magazine.
    - A booth at the 2015 Iowa American Institute of Architects Convention in Des Moines, Iowa. At this event, recipients of the 2015 Excellence in Energy Efficient Design Award also were recognized for their outstanding efforts in reducing energy use through joint-utility Commercial New Construction activities. Two seminars were presented during the convention, one showcasing how to implement energy modeling services into the design process, and one reviewing the potential impacts of the proposed energy code and strategies to achieve savings beyond a code level baseline.
    - An ad placed in an American Institute of Architects Iowa insert that appeared in newspapers across Iowa in the spring.
- Lunch and learn sessions were conducted with architecture and engineering firms; these sessions were approved for one Continuing Education Unit for LEED® Accredited Professionals.
- Program promotion and networking with the architecture community occurred at multiple events and meetings for organizations including: American Institute of Architecture, Iowa Women in Architecture, USGBC Iowa, Iowa Architectural

Foundation, Design-Build Institute of American, Iowa Chapter and the Central Iowa Architects Council.

Key Activities Planned in 2016

- MidAmerican will place a major focus on tracking construction completion status and verifying the completion of over 70 buildings that have expected construction completion dates in 2016.
- MidAmerican will continue to investigate the impact of the code adopted in mid-2014, as well as, the anticipated code change in late 2016/early 2017, which has resulted in a decrease in average incentive, increase in the average incremental cost and increase in average simple payback. The incentive scale is being reviewed in 2016 to determine if the current scale is at the right level to encourage customers to implement higher saving energy conservation measures.
- The program offers training seminars to architecture and engineering firms. In 2015, few firms expressed interest in the training session. In 2016, direct outreach to trade allies is increasing with the rollout of a new interactive training seminar. In the first quarter of 2016, 16 architecture and engineering firms have signed up and received a training seminar at their offices.
- MidAmerican will continue to bring new projects into the project pipeline through introduction to Commercial New Construction lunch and learn programs, investigating project leads found through CMD Insight, a construction market database, 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 identification of projects.

- MidAmerican will participate in the sixth annual Excellence in Energy Efficiency Awards planned for 2016. Awards will be announced in conjunction with the 2016 AIA Iowa Convention in September.
- Training will be provided to key account managers and trade ally ambassadors to assist them in identifying viable Commercial New Construction projects and assist them in guiding customers to the best program 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 demand by at least 250 kilowatts 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 Rider CS. Nonresidential Load Management is a mature program, as MidAmerican and its predecessor companies have offered it for many years, and most participants have been involved for multiple years.

Guidelines and requirements for participation are provided in tariffs specifying notice requirements, number of curtailment events and other program procedures. During 2015, curtailment requests were limited by tariff to a maximum of 16 per season (June through September) with a maximum duration of six hours per event. Participants were offered either one-year or three-year contracts. New participants were limited to signing one-year contracts in order to confirm their ability to perform as required in this mandatory program. Returning participants who performed as required in prior years may have been offered the option of a three-year contract with a higher incentive per kilowatt interrupted.

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 curtailment event manager, an internet-based 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.

2015 Results Compared to Plan and Budget

Total electric savings for the Nonresidential Load Management program were 211,030 kW of system peak demand. This figure represents 86 percent of total 2015 planned peak demand kW savings. Total spending for the Nonresidential Load Management program was $10,105,280, which was 118 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 111 customers participated in the program.
- Eight new contracts were signed, accounting for 8,770 kW of curtailable load.
- 29 contracts were renewed, accounting for a net increase of 4,625 kW from 2014.
- Two contracts were either terminated or not renewed, accounting for a reduction of 1,030 kW of curtailable load.
- Eleven contracts were amended for the purpose of changing contract curtailment load accounting for a net decrease of 1,180 kW of curtailable load.
- No curtailment events were called by MISO or MidAmerican in 2015. A certification event was conducted for each participant to test its ability to curtail its contracted curtailable load (see detailed curtailment event data in Exhibit J).
- Pursuant to MISO requirements, results of generator curtailments were submitted to MISO as required for accreditation of the curtailable load as load management resources.

Key Program Challenges in 2015

- Neither MidAmerican nor MISO issued a curtailment event due to the mild summer weather.

Promotion

- Key account managers met one-on-one with prospective customers.
- A program brochure, tariff and contract were distributed that clearly explained the program, customer requirements, financial incentives and program compliance. Case studies of successful curtailment strategies used by existing customers and a program-specific web page also were available to help promote the program.

Key Activities Planned in 2016

- MidAmerican will conduct its annual mock curtailment event in May 2016 to ensure full functionality of the curtailment events manager application, including its notification procedures and data communication channels, and to allow participants to run through their own event-day procedures. Participants are not required to curtail load during this event; however, many will do so in order to test generators and load shedding/shifting procedures prior to the summer curtailment season.
- If no events are called by either MISO or MidAmerican, a load certification event will be called between August 1 and August 31, 2016.

Appliance Recycling

The Appliance Recycling program encourages customers to stop using old, inefficient refrigerators, freezers and room air conditioners and helps them dispose of the old units in an environmentally responsible manner. The program primarily targets residential customers, but is available to all of MidAmerican's Iowa electric customers. The program provides rebates to customers participating in the program and provides free pick up and disposal of old working appliances. To be eligible for program services and rebates, appliances must be working and refrigerators and freezers must be at least 10 cubic feet in size. MidAmerican implements this program through a third-party contractor specializing in recycling appliances.

Until November 2015, the Appliance Recycling program was implemented by Jaco Environmental with CLEAResut as its subcontractor. On November 24, 2015, Jaco Environmental ceased operations when placed in receivership by its lenders. Upon notification, MidAmerican reached out directly to CLEAResult to fulfill customer pick-ups that were already scheduled. In December 2015, CLEAResult was awarded the Appliance Recycling program contract and began scheduling new customer pick-ups in mid-December. Due to this situation and the inability to receive timely information and reports from the receivership, 2,213 appliances were picked up and recycled in 2015 but not accounted for in this program until 2016.

2015 Results Compared to Plan and Budget

Total electric savings for the Residential Appliance Recycling program were 3,294,671 kWh, which was 36 percent of the total 2015 planned electric savings. Total spending for the Residential Appliance Recycling program was $744,173, which was 27 percent of the 2015 Plan.

Total electric savings for the Nonresidential Appliance Recycling program was 82,335

kWh, which was 31 percent of the total 2015 planned electric savings. Total spending for the Nonresidential Recycling program was $17,019, which was 28 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 3,822 residential appliances were recycled, which was 45 percent of the total planned goal.
- 99 nonresidential appliances were recycled, which was 38 percent of the total planned goal.
- MidAmerican is a Responsible Appliance Disposal (RAD) partner, an organization sponsored by the United States Environmental Protection Agency.

Key Program Challenges in 2015

- The program's overall awareness and momentum was building; however, the abrupt cease of operations by the contractor caused customers to lose confidence in the program.
- MidAmerican's call center saw an increase in the number of customer calls due to Jaco Environmental closing. MidAmerican resolved concerns with customers not receiving rebate checks, returned checks and bank fees associated with the returned checks.

Promotion

- A bill insert promoting the program was sent in March and December. An insert was also included in the May/June Home Energy Reports.
- MidAmerican provided promotional materials and signage to major appliance retailers. MidAmerican is using advertising tools, such as an appliance cling to

promote both new energy efficient refrigerators and freezers and recycling the old units. This is a further reminder that customers can get a rebate for qualified new appliances along with a rebate for recycling the old units.

- The program was promoted with print ads in markets across the state.
- Program web advertisements were placed on various websites.
- MidAmerican promoted appliance recycling with the At Your Service piece to its customers with electronic billing web accounts in May.
- Radio and television ads were placed in markets across the state throughout the year; however they were pulled during November due to Jaco Environmental ceasing operations to allow MidAmerican time to find a new implementation partner.
- The program was cross-promoted by including a flyer in the HomeCheck leave behind packet.
- Social media platforms were used to promote the program at various times throughout the year.

Key Activities Planned in 2016

To increase participation in the program, MidAmerican will:

- Incorporate the ENERGY STAR 2016 campaign "Flip your Fridge" into MidAmerican's program marketing and outreach effort with the trade allies.
- Distribute Appliance Recycling program specific information with Home Energy Reports.
- Conduct special events such as coordinating with city officials to have a recycling truck available at refuse drop-off sites on designated clean-up days.

Upstream Retail Lighting

The Upstream Retail Lighting is a joint utility program that promotes the purchase of energy-efficient compact fluorescent lamps (CFLs) and light emitting diodes (LEDs). The program provides instant incentives to discount the retail price of energy efficient lighting at participating upstream suppliers and retailers. It is marketed as Be Bright.

2015 Results Compared to Plan and Budget

Total electric savings for the Upstream Retail Lighting program in 2015 were 47,641,687 kWh, which was 149 percent of goal. The total program spending was $2,894,372 which is 96 percent of plan.

Key Program Successes and Activities in 2015

Upstream Retail Lighting program highlights for 2015 include the following:

- 1,155,385 CFLs sold, which was 133 percent of goal.
- 298,635 LEDs sold which was 150 percent of goal and a 214 percent increase over 2014 LED sales.
- The program contractor made 1,957 visits to participating retailers and suppliers.

Key Program Challenges in 2015

- Non-ENERGY STAR LEDs gained placement in stores and in the marketplace in late 2015. These new bulbs are lower in price and do not meet ENERGY STAR's omnidirectional specification. The program contractor is closely monitoring these products and the impact they may have on the current and future CFL and LED programs in Iowa.

Promotion

- The program contractor provided retailers and suppliers 217 formal training events and held 49 in-store demonstrations promoting the program.
- The Be Bright program was promoted on Facebook in March and July, and promoted on Twitter in February, March, June and July.
- The Be Bright program was featured in the MidAmerican monthly e-newsletter to customers in March.
- In March, July, August and November, the program was featured in PowerSource, MidAmerican's internal employee newsletter.

Key Activities Planned in 2016

Key Activities planned for 2016 include:

- MidAmerican will conduct in-store demonstrations at selected retailers and electrical distributors promoting the features and benefits of LEDs. Social media and press releases will be used to promote such events.
- MidAmerican will monitor overall LED pricing and the impact of non-ENERGY STAR LEDs on program CFLs and LEDs.
- MidAmerican began discussions with trade allies on how the new ENERGY STAR specification, effective in January 2017, will impact the program. The majority of CFLs on the ENERGY STAR list will no longer be eligible measures for buy-down incentives after 2016.

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 four 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 program also includes an education component for Low-Income Home Energy Assistance (LIHEAP)-eligible customers and a multifamily and institutional housing component.

The second component, Energy Wise, is an education component of the program. Participating CAP agencies recruit Energy Wise Program workshop participants through day-to-day interactions with their LIHEAP clients. Each household that attends the training receives a take-home Energy Wise home savings kit with these energy saving measures:

- One 13 watt CFL and one 18 watt CFL
- One 9 watt LED
- One high-efficiency showerhead – 1.75 gallons per minute (gpm)
- One faucet aerator for both the kitchen and bathroom
- A furnace filter alarm for furnace or air conditioner

- Rope caulk for weather stripping around doors, windows and other openings
- A digital thermometer to test temperature in a room, of the hot water, and inside the refrigerator and freezer
- A water-flow measurement bag
- A window wrap kit

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.

The fourth component, multifamily, includes institutional housing and emergency shelters. The multifamily component is a joint utility program and is administered by The Energy Group, which provides assessment services and reports directly to the three investor-owned utilities.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Low-Income program were 1,549,457 kWh and 240,885 therms respectively. These figures represent 67 percent of total 2015 planned electric savings and 125 percent of total 2015 planned gas savings. Total spending for the Low-Income program was $3,258,853, which represents 82 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- $2,550,000 in funding was provided to IDHR for weatherization services.
- 1,404 Energy Wise Home Savings Kits were provided by MidAmerican to local community action agencies. Kits purchased in 2015 saved an average of 383 kWh and 25 therms each.

- 3,500 Energy Wise Home Savings Kits were provided to the three utilities in 2015 which generated an estimated combined participant bill savings of $341,667 and equates to an average participating household savings of approximately $99 per year.
- 52 agency staff from nine CAP agencies attended training sessions.
- Home Energy Reports were mailed to 9,139 dual fuel customers and 4,188 electric-only customers.
- 121 low income multifamily building assessments were completed in 2015 compared to 11 building assessments in 2014. The dramatic increase was a result of building stronger relationships with property management companies, completing assessments for several properties with a large number of buildings and implementing an effective marketing plan to better target areas of need and spread awareness of the program. MidAmerican is projecting that 2016 will be an even bigger year than 2015 with 90 building assessments completed in the first quarter.
- As a result of low income multifamily assessments, 11,172 electric measures and 4,180 gas measures were installed totaling 449,039 kWh and 45,994 therm savings.
    - 9,902 direct install lighting measures accounted for 276,035 kWh, or 61 percent of electric savings from low income multifamily activity.

Key Program Challenges in 2015

- Constant contact is required with many customers or they tend to forget about the Low Income Multifamily program and potential offerings.
- The upfront investment to upgrade rental property continued to be a barrier for some landlords and owners. Some landlords and owners preferred to invest in visible

investments. Fresh paint and new floor coverings are more appealing to potential renters compared to the benefits of energy efficiency measures.

- For many landlords and/or property managers, the fact that most multifamily housing units are individually metered with the tenant paying the monthly utility bills remains a barrier. Uninformed property owners/managers see little financial incentive to make energy efficiency improvements. Therefore, the conversion rate for identified recommendations has been impacted.
- The Home Energy Report portion of the program is producing fewer savings than anticipated due to the limited availability of the necessary household mix needed to maximize energy savings.
- The electric savings for the residential weatherization program was incorrectly calculated in 2014 when the savings values from the Statewide Low-Income Collaborative Evaluation (SLICE) report issued in April 2012 was used. The 2015 electric savings reflects a reduction of 114,167 kWh and 78.97 kW based on the overstated savings in 2014. MidAmerican has put a formalized process in place to perform an annual reconciliation of savings based on the final SLICE report issued for each calendar year going forward.

Promotion

- MidAmerican Energy's implementation contractor staffed a booth at the Iowa Landlord Association conference to promote the program and encourage property owners to participate in the program.
- MidAmerican Energy's implementation contractor attended the 2015 Housing Iowa conference through the Iowa Finance Authority.

- Community action agencies promoted low-income weatherization assessments to eligible customers.
- MidAmerican worked jointly with Cadmus Consulting, IPL and BHE to promote the Energy Wise program to community action agencies. The Iowa Energy Wise website was launched in 2015 and included:
    - Introduction to the program,
    - List of participating agencies and where to find them,
    - Details about the kit measures including installation videos and step-by-step instruction sheets,
    - Links to energy efficiency resources and downloadable "tips" for saving energy in the home, and
    - A link to the online participant survey portal.

Key Activities Planned in 2016

- MidAmerican will investigate the feasibility of implementing LED light bulbs, rather than CFLs, as direct install measures during energy assessments in units and common areas for the multifamily sector.
- A marketing brochure will be developed and circulated to promote the Low Income Multifamily program. The brochure will outline program offerings, clarify processes and identify benefits to property owners and managers.
- MidAmerican will continue to follow up with property owners who have received an assessment to review the recommendations in the assessment report and further educate customers on the value of the benefits to property owners that implement recommendations (i.e. lower utility bills for tenants, tenants staying longer, etc.).

- MidAmerican will work with IDHR to implement the program in 2016 at the contract level of $2,600,000.
- In collaboration with Cadmus Consulting, Iowa Utility Association (IUA), IPL and BHE, MidAmerican will produce Energy Wise Train-the-Trainer video clips covering each topic covered in the live training sessions. These videos will allow participating agency staff unable to attend the live sessions to receive training and will allow for clients to access program content at any time.
- In collaboration with Cadmus Consulting, IUA, IPL and BHE, MidAmerican will conduct two roundtable discussions each with six to eight community action agency staff who deliver Energy Wise education and kits to their clients. These discussions will explore several topics including:
    - How agency staff identify appropriate candidates for energy education and energy saving kits and how they promote these offerings to them.
    - How agency staff deliver energy education and kits to clients and what they see as the benefits and drawbacks of these approaches.
    - Common questions and concerns from clients and how agency staff help to resolve these issues.
    - Agency staff successes, challenges and suggested improvements.
    - Iowa Energy Wise website awareness, visitation and utilization.
    - Potential improvements to training materials and delivery, website content and resources for agency staff and clients.
    - Receptivity to and interest in potential changes or updates to training materials.

Multifamily Housing Program

The Multifamily Housing program provides comprehensive on-site energy assessments, free low-cost efficiency measures and a comprehensive assessment report, which includes recommendations for both individual housing units and common areas. Any prescriptive or cost-effective custom energy efficiency measure is potentially eligible for rebate under the Multifamily Housing program. The Multifamily Housing program provides a comprehensive set of services and financial incentives to serve the varied needs of multifamily property owners, property managers, landlords and renters in existing buildings. The program's marketing and delivery strategies seek to overcome the split-incentive market barrier associated with buildings occupied by residential tenants. The split incentive occurs because property owners, who generally do not pay utility bills, may not have adequate incentives to invest in energy efficiency. Conversely, tenants, who do not own the property and cannot install high-efficiency equipment but usually do pay the utility bills, also may not have adequate incentives to invest in energy efficiency. This splint incentive makes this a difficult-to-reach sector. In 2015, MidAmerican issued a request for proposals to potential implementation contractors. Franklin Energy was selected to continue to implement the program for MidAmerican's customers. As part of the new contract a pay-for-performance component was developed to encourage Franklin Energy to assist customers with project conversion following an assessment.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the Multifamily Housing program were 6,343,611 kWh and 413,123 therms respectively. These figures are 62 percent of total 2015 planned electric savings and 124 percent of total 2015 planned gas savings. The 2015 Multifamily Housing program exceeded the 2014 Multifamily Housing program electric savings by two percent and

gas savings by 61 percent. Total spending for the Multifamily Housing program was $5,627,757 which is 77 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 1,151 assessments were completed in this program, compared to 1,077 during 2014.
- 68,587 direct install measures were installed, resulting in saving 2,080,598 kWh and 52,570 therms.
- 6,152 gas HVAC measures were installed, which provided 57 percent of the achieved total gas savings for the Multifamily Housing program.
- 5,627 electric HVAC measures were installed, which provided 29 percent of the achieved total electric savings for the Multifamily Housing program.
- 7,172 lighting measures were installed, which provided 18 percent of the achieved total electric savings for the Multifamily Housing program. LED measures combined for $191,140 in customer incentives and 1,116,850 kWh in savings which is 18 percent of the achieved total electric savings.

Key Program Challenges in 2015

- MidAmerican placed a freeze on insulation projects until May 1, 2015, due to some insulation trade allies that were marketing the program as a no-cost insulation opportunity to customers. Many of the large insulation trade allies were made aware of this freeze, and as a result moved to other markets in the country. These trade allies were not recommending assessments to their customers during this freeze.
- CFL direct installs have been a large component of the Multifamily Housing program, and the number of opportunities are decreasing as property owners are now requiring their maintenance staff to purchase CFL lamps versus incandescent.

- For many landlords and/or property managers, the fact that most multifamily housing units are individually metered with the tenant paying the monthly utility bills remains a barrier. Uninformed property owners/managers see little financial incentive to make energy efficiency improvements.
- The upfront investment to upgrade rental property continued to be a barrier for some landlords and owners, impacting the conversion rate for identified recommendations.

Promotion

- MidAmerican attended landlord association events and monthly landlord association meetings throughout the state.
- MidAmerican completed in person outreach targeting western Iowa. As a result, the program realized an increase in participation in this area involving greater than 125 buildings.

Key Activities Planned in 2016

- MidAmerican negotiated a new pay-for-performance contract with the program implementation contractor to increase project conversion following an assessment.
- MidAmerican will introduce a LED direct install to the Multifamily Housing program that will help offset some loss of CFL direct install opportunities.
- MidAmerican continues to network with property owners/managers by participating in the Iowa Landlord Association's spring and fall trade shows, attending association meetings and conducting lunch and learn sessions whenever appropriate.

Agricultural Assessment Program

The Agricultural Assessment program is designed to provide services and incentives to serve the specific needs of the agricultural sector. The program is delivered through the assistance of a program implementation contractor who conducts an energy assessment to help customers better understand how their agribusiness uses energy and how to use energy more efficiently to reduce monthly energy bills. Customers receive an assessment report that includes recommendations for energy-saving actions, complete with estimates of energy-savings potential and general cost estimates for each recommended action, including low- or no-cost suggestions for quick energy savings.

In 2015, MidAmerican issued a request for proposals to potential implementation contractors. Franklin Energy was selected to continue to implement the program for MidAmerican's customers. As part of the new contract a pay-for-performance component was developed to encourage Franklin Energy to assist customers with project conversion following an assessment.

2015 Results Compared to Plan and Budget

Total electric and gas savings for the agriculture program were 1,146,607 kWh and 54,140 therms respectively. These figures are 337 percent of total 2015 planned electric savings and 712 percent of total 2015 planned gas savings. The 2015 Agriculture program exceeded the 2014 Agriculture program electric savings by 43 percent and gas savings by 951 percent. Total spending for the Agriculture program was $603,271 which is 292 percent of the 2015 Plan. The increase in spend is directly related to the increase in savings achieved and incentive payments for implemented projects.

Key Program Successes and Activities in 2015

- 47 energy assessments were conducted, which is 82 percent of goal.
- The achieved electric and natural gas savings were a result of installed recommendations from assessments, not simply from direct install measures. Savings were recognized through follow-up activities as a result of the assessments.
- Two custom grain dyer projects were installed, which provided 93 percent of the achieved total gas savings and nine percent of the achieved total electric savings for the Agricultural Assessment program.
- 1,630 lighting measures were installed, which provided 48 percent of the achieved total electric savings for the Agricultural Assessment program. LED measures combined for $69,159 in customer incentives and 426,268 kWh in savings which is 37 percent of the achieved total electric savings.
- 134 electric HVAC measures were installed, which provided 30 percent of the achieved total electric savings for the Agricultural Assessment program.

Key Program Challenges in 2015

- The conversion rate of recommended measures continues to be a challenge. With seasonal time limitations because of planting/harvesting efforts there is a smaller window of opportunity to work with producers.
- MidAmerican has a moderate, diverse base of farm producers that is widely dispersed across the service territory, with fewer than 9,000 known producers.
- Grain drying facilities are the top prospect, but many are on delivered fuel and access to natural gas isn't always a cost effective option.

Promotion

- MidAmerican initiated a direct mail campaign to agriculture customers promoting the assessment offering.
- Program staff attended the Pork Congress and Iowa Farm Energy Task Force meeting.

Key Activities Planned in 2016

- MidAmerican negotiated a new pay-for-performance contract with the program implementation contractor to increase project conversion following an assessment.
- MidAmerican will continue aggressively marketing and promoting the Agricultural Assessment program across the state.
- MidAmerican will continue efforts to increase the level of program awareness by participating in agricultural events, such as the Farm Progress Show and other agricultural trade shows.
- MidAmerican will conduct one-on-one outreach efforts to trade allies that work within the agriculture sector to increase program awareness.

Education Program

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

Awareness

Awareness is driven by MidAmerican's advertising and promotion activities that help educate MidAmerican customers about the benefits of energy efficiency. The Power in Your Hands advertising campaign continued in 2015 which promotes the Save Some Green branding utilized for EnergyAdvantage® programs. Like prior campaigns, it includes broadcast TV, cable TV, radio, print, outdoor and online advertising to communicate the importance and benefits of energy efficiency to MidAmerican customers. The goals of MidAmerican's awareness efforts include:

- Educate customers on the benefits of energy efficiency and MidAmerican's energy efficiency programs.
- Increase customer awareness of EnergyAdvantage programs.
- Present simplified and personalized energy efficiency messages in direct and serious tones to help customers understand they can act on their own and be in control of energy usage.
- Improve communication with the traditionally hard-to-reach small commercial market.
- Improve communication on program offerings to key large industrial customers.
- Help MidAmerican achieve its aggressive plan participation and savings goals.

Trade Ally Support

Trade allies provide an important delivery channel for MidAmerican's energy efficiency programs. Trade allies include vendors, installers, wholesalers, distributors and manufacturers of a wide range of energy efficiency products and services. There are also trade-specific trade allies, including architects, engineers, mechanical and electrical contractors and others. Collectively, they support MidAmerican's energy efficiency programs through various activities, including:

- Informing customers that incentives are available for certain energy-efficient products, often as part of the sales process.
- Explaining key differences between standard and energy-efficient products.
- Facilitating design, installation and operation of energy-efficient equipment.

Many of the mass-market energy efficiency programs, such as the Residential and Nonresidential Equipment programs, rely heavily on trade allies to promote and deliver the programs. These trade allies support MidAmerican's programs, use them to help increase their own sales and educate customers on the importance of energy efficiency.

The overall goals of the trade ally program include:

- Building and maintaining a strong trade ally network to increase customer awareness of and participation in MidAmerican's energy efficiency programs.
- Distributing information about energy efficiency programs to trade allies to help them meet the needs of customers.
- Providing training opportunities to trade allies to help promote MidAmerican's energy efficiency programs.
- Increasing trade ally satisfaction with MidAmerican and its energy efficiency programs.

Training

MidAmerican sponsors training programs for customers and trade allies to increase their knowledge of specific energy efficiency programs and systems. MidAmerican leverages its training activities by offering programs that are created and delivered by third-party providers and by offering programs in coordination with other state and regional utilities. The training program is an integral part of MidAmerican's efforts to enhance its trade ally outreach and support.

School Curricula

Through this program, MidAmerican works with schools to integrate energy efficiency education into school curricula and extracurricular activities. MidAmerican uses email and direct mail to offer a complimentary curriculum called *eSMARTkids* to all school principals and teachers grades K-9 throughout its Iowa service territory. *eSMARTkids* is available on MidAmerican's website with specialized sections for teachers, students and parents. With the program, MidAmerican provides standards-based, age-appropriate energy efficiency educational materials—lesson plans, pre/post tests, and booklets—to schools in its Iowa service territory.

2015 Results Compared to Plan and Budget

There were no planned electric or gas savings in 2015. Total spending for the Education program was $4,513,901 which is 101 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- The *eSMARTkids* offering was used to deliver a comprehensive energy efficiency outreach and education program to principals, curriculum coordinators, teachers, students and parents throughout MidAmerican's service territory. The offering

includes email and direct mail outreach, age-appropriate standards-based classroom curriculum materials, curriculum-based website, teachers' guides, and pre-/post-tests.

  - 43,840 students in grades K-6 received energy efficiency education, representing 22.7 percent of the targeted student population.
  - 265 schools of the 888 schools who received offerings participated in the program, which represented a 29.8 percent school penetration rate.
  - 976 educators participated in the program, representing 14.4 percent of the 6,778 teachers contacted.

- Program adjustments made in 2015 to drive continuous improvement resulted in significant improvements to the school curriculum outreach impacts (teacher response rate increased to 14.4 percent from 8.1 percent), the number of participating schools (school penetration rate more than doubled, going from 14.4 percent in 2014 to 29.8 percent in 2015), and the number of students educated (43,840 in 2015, up from 37,068 in 2014). These strategic adjustments included:
  - Adding direct mail outreach to teachers to reach more educators directly.
  - Identifying curriculum coordinators as a new audience segment.
  - Improving resource allocation by adjusting the target audience for outreach as well as for the curriculum materials from K-9 educators to K-6 educators – the grade range most likely to participate in the program.
- MidAmerican continued its college and university sponsorship initiative. Participants included Briar Cliff University, Drake University, Iowa Central Community College, Iowa Western Community College, Mount Mercy College, Northwestern College, Simpson College, Wartburg College, William Penn University, University of Iowa, Iowa State University and the University of Northern Iowa.

- MidAmerican continued sponsorship with the Knoxville Raceway, the Quad City Riverbandits, and the Waterloo Bucks.
- MidAmerican sponsored several events including the Des Moines Arts Festival, Saturday downtown Des Moines farmers' market, Music Under the Canopy, World Food & Music, Wonder of Words Festival and ImaginEve!
- *Power in Your Hands* was advertised through television, radio, internet and print advertising. Creative was designed to allow for easy rotation of program-specific messages, incorporate a more direct call to action and focus on participant benefits.
- A robust trade ally outreach strategy was implemented with the following key successes that include:
    - An outreach plan was implemented to enroll trade allies into the Trade Ally Network. 421 Iowa trade allies were directly contacted in 2015.
    - Trade Ally Ambassadors encouraged high-participating/top-performing trade allies to participate and become Trade Ally Partners. In 2015, 94 Iowa-based trade allies became Trade Ally Partners, representing 112 offices in the Trade Ally Network. Additionally, 146 trade allies are in the application and participation process for becoming a Trade Ally Partner.
    - A trade ally website was developed and launched in 2015. Trade Ally Partners have exclusive access to this portal to manage their profile, upload requirements documents, and access to rebate forms, support materials and marketing guidelines.
    - A Trade Ally Partner Search Tool was launched in November 2015. When customers are planning to make home or business energy efficiency improvements, this tool connects customers to MidAmerican Energy's Trade

Ally Partners. Approximately 25 customers accessed this site per day in November and December 2015.

  - There were 7,972 touch points with trade allies in 2015. This includes in person meetings, email, phone communication and event outreach.
  - Twelve email communications on rebate and program updates and other program reminders were sent to trade allies throughout the year.
  - The trade ally outreach team hosted product manager and program implementation contractor meetings throughout the year to continue to build relationships and determine how the trade ally team can support their efforts.
  - Annual trade ally meetings to introduce the 2016 programs were held in November and December in Sioux City, Council Bluffs, Des Moines, Fort Dodge, Cedar Rapids, Waterloo and Bettendorf. 509 trade allies attended and representing 261 trade ally companies.
  - An eNewsletter draft was introduced at the 2015 trade ally meetings. 93 percent of respondents indicated receiving the eNewsletter would be beneficial to their business.

- Building Operator Certification training was held in Davenport, Cedar Falls and Iowa City.
- Energy efficiency was promoted at 43 *MidAmerican Night* high school athletic events.
- Energy efficiency was promoted at 41 community and state-level events, including:
  - Homebuilder Association Home & Builder Shows in Iowa City, Sioux Falls, Sioux City, Sheldon, and Des Moines
  - Iowa State Fair – Des Moines

- Master Builders of Iowa – Des Moines
- Iowa Pork Congress – Des Moines
- Graybar Trade Show – Des Moines
- Lowes Pro Appreciation Day – Des Moines
- Educational session/lunch and learns with Mitchel Electric, VanMeter, Graybar and 3E
- Landlords of Iowa State Convention – Ames
- Mercy Hospital Information Fair – Sioux City

- MidAmerican continued its elementary school activity with the Science Center of Iowa by bringing *Simply Electrifying* assembly programs to elementary students in MidAmerican's Iowa service territory. *Simply Electrifying* reinforces National Science Standards and provides electric safety and energy efficiency information to students.
- MidAmerican participates in a sponsorship with the Iowa Energy basketball team which includes a student day inviting several thousand area grade school students to attend a game and receive energy efficiency materials, tips and watch green games during time-outs.
- MidAmerican matched membership funds for the Energy Association of Iowa Schools (EAIS) to provide targeted assistance to rural schools about energy efficiency:
    - Six schools in MidAmerican's service territory are participating in EAIS, three schools completed energy efficiency projects in 2015.
    - In January, EAIS held a webinar "Natural Gas: Is Your School Saving $?" Ten schools and 22 superintendents and business managers attended.

- MidAmerican continued to use a comprehensive marketing plan that includes traditional and nontraditional marketing strategies for individual energy efficiency programs, which include; paid media, social media messaging, public relations, website promotion, bill inserts, customer and employee newsletters, call center and customer office communication.
- MidAmerican partnered with Green Iowa AmeriCorps and IPL to conduct a joint Manufactured Housing Weatherization pilot in 2014 and 2015. Green Iowa AmeriCorps identified Kirkwood Estates Park in Marion as a proactive participant to support the pilot project. Green Iowa AmeriCorps actively marketed the project to the park during the fall months of 2014. During the time of the pilot, Green Iowa AmeriCorps worked with 17 Kirkwood Estates homeownersto directly install attic insulation, rim joist insulation, door sweeps, sash locks, weather stripping, caulk/foam, insulated outlet switch covers, and window kits. The project will not be expanded due to numerous structural difficulties identified while working with this housing type that is generally beyond the scope of Green Iowa AmeriCorps core capabilities.

Key Program Challenges in 2015

- Trade Ally Partner growth was encouraging, with a total of 100 Trade Ally Partners across the MidAmerican service territory by the end of 2015. However, outreach was challenging due to limited staff, competing priorities, and the need to provide quality service to a growing Trade Ally Partner Network. The program plans to add another Trade Ally Ambassador in 2016.

Key Activities Planned in 2016

- MidAmerican will continue energy efficiency awareness with the *Power in Your Hands* theme through television, radio, outdoor, internet and print advertising. These advertisements will run throughout the year.
- Energy efficiency programs and tips will be promoted at community events and various other events as opportunities arise.
- MidAmerican will distribute a new trade ally eNewsletter in first quarter of 2016, followed by two additional issues. The newsletter is designed to establish a trusted channel for communication with all trade allies and strengthen participation in MidAmerican programs by:
    - Fulfilling the trade ally desire to receive timely and relevant information about topics such as navigating energy efficiency programs, rebate and deadline updates, upcoming events, and events in the industry.
    - Continuing the relationship and line of communication with trade allies in addition to regular outreach activities.
    - Providing targeted content in each issue to demonstrate the value, benefits and contributions of the Trade Ally Network.
    - Engaging less involved trade allies to increase participation and have interest in joining the Network.
- Outreach efforts to encourage trade allies to join the Trade Ally Network will be continued.
- MidAmerican will explore additional benefits for trade allies that join the Trade Ally Network, including training opportunities and determining the feasibility of a rate calculator tool.

- MidAmerican will partner again with Green Iowa AmeriCorps to identify and weatherize homes on a waiting list in Black Hawk County by Operation Threshold, a community action agency.
- MidAmerican will continue to hold annual trade ally meetings to introduce the 2017 programs and provide relevant information based on trade ally feedback. Meetings will be held in November and December across MidAmerican's service territory.

Trees Program

MidAmerican's trees programs encourage tree planting through projects combining customer education and financial grants. MidAmerican's trees programs include: *Plant Some Shade, Trees for Kids/Trees for Teens,* and *Trees Please!* Financial grants via the *Trees Please!* program are made directly to communities located in MidAmerican's Iowa service territory. Special projects include tree plantings hosted by MidAmerican at local schools and parks. Additionally, MidAmerican helps fund the Iowa Department of Natural Resources' *Trees for Kids/Trees for Teens* programs.

2015 Results Compared to Plan and Budget

There were no planned electric or gas savings in 2015. Total spending for the Trees program was $503,803 which is 90 percent of the 2015 Plan.

Key Program Successes and Activities in 2015

- 68 communities returned complete *Trees Please!* program applications and all 68 received financial grants. The funding grants received by the 68 communities totaled $203,000.
- Because of MidAmerican's support of the IDNR's *Trees for Kids/Trees for Teens* program, 1,876 information packets were electronically mailed to principals and superintendents. 700 packets were electronically mailed to mayors, city clerks and tree board members throughout Iowa. Over 100 educators were provided Project Learning Tree one or two-day trainings. A total of 42 *Trees for Kids* grants totaling $148,130 were provided to schools which planted 1,265 landscape trees with 4,200 youth and over 300 parents involved in tree planting and maintenance. This represented 9,462 volunteer hours. An additional $13,230 was awarded to 98 schools

and Iowa communities received 19,600 seedlings to plant on school grounds, public grounds and in backyards.

- There were 13 *Plant Some Shade* events in 2015. Spring events were held in Cedar Rapids, Clarksville, Council Bluffs, Davenport, Des Moines, Fort Dodge, Indianola, Iowa City and Waterloo. Fall events were held in Des Moines, Waukee, Oskaloosa and Sioux City. In all, 3,044 trees were distributed to 1,373 residential customers.
- A special *Plant Some Shade* event was added for the Clarksville community. In the last decade the Clarksville area had experienced flooding, drought, tornadoes and straight line winds. The event was well received and 98 trees were distributed.
- MidAmerican's forestry department planted seven trees in seven communities served by MidAmerican in conjunction with Arbor Day celebrations.
- 77 Tout Your City's Participation signs were requested by and distributed to 41 communities to advertise their participation in the *Tree Please!* program. These signs are designed to be used at the cities' entrances or on poles where they have planted their trees.
- 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 that implement tree management practices that protect and enhance America's urban forests.

Key Program Challenges in 2015

- Community participation in the *Trees Please!* program declined in 2015. Due to wet weather conditions, nine communities did not complete their tree planting projects in 2015. They plan to complete the projects in 2016.
- Total spending for the Trees program was down 10 percent in 2015. Fewer communities applied for Trees Please! grants and fewer communities ordered Tout your City's Participation signs. The cost-saving decision was made to make the tree information booklet available only online instead of printing it. These items led to budget under spending for this program.

Promotion

- Tout Your City's participation signs advertise communities' participation in the *Trees Please!* program. These signs are designed to be used at the cities entrances or on poles where they have planted their trees.
- *Trees Please!* and *Plant Some Shade* events were promoted at Arbor Day celebrations.
- Articles promoting *Plant Some Shade* events ran in MidAmerican's employee newsletter PowerSource in March and September.
- An email was sent to Council Bluffs customers to encourage participation in the spring *Plant Some Shade* event.
- Press releases were used for both *Trees Please!* and *Plant Some Shade* programs.
- Social media was used to promote tree applications and *Plant Some Shade* events.

Key Activities Planned in 2016

- Charles City has expressed interest in hosting a *Plant Some Shade* event.
- Sioux City partners are interested in offering *Plant Some Shade* events in both the spring and the fall.
- An online application process is being developed for *Trees Please!* applicants and may be available in the fall of 2016.
- Additional marketing efforts will be added for *Plant Some Shade* communities that saw lower participation and had extra trees available for purchase during their pick-up event.