STATE OF IOWA

BEFORE THE IOWA UTILITIES BOARD

IN RE:	:	
MIDAMERICAN ENERGY COMPANY	:	**Docket No. EEP-2012-0002**

MIDAMERICAN ENERGY COMPANY

Revised Volume II

February 24, 2014

TABLE OF CONTENTS

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Executive Summary

General Description

MidAmerican Energy Company (MidAmerican) submits its 2014-2018 Energy Efficiency Plan (Plan) in accordance with the requirements set forth under Chapter 35 of the Iowa Administrative Code (IAC). MidAmerican's Plan builds on its 2009-2013 plan and will continue to provide a comprehensive portfolio of energy efficiency programs during the five-year planning period from 2014 to 2018 with some significant changes in the details of MidAmerican's programs. The Plan includes several new measures to capture untapped market potential and opportunities to increase customer participation and depth of savings by incorporating new market sectors, technologies and delivery strategy improvements. The Plan offers customers in every sector the flexibility to participate at many levels, based on their individual needs and building type.

Most programs will be offered as joint electric and natural gas programs. However, customers will only be eligible for the portions of the programs related to the energy service they purchase from MidAmerican.

MidAmerican Energy presented the Plan to the Board in Docket No. EEP-2012-0002, which was partially settled over the course of the proceedings in a Non-Unanimous Partial Settlement Agreement (Settlement Agreement) submitted to the Board on August 26, 2013. In its Final Order issued December 16, 2013 (Final Order), the Board approved certain portions of the Settlement Agreement and ruled on issues that remain contested.

MidAmerican expects to implement this Plan no later than January 1, 2014. Several of the programs described in this Plan are already in place and operational. There are significant changes to several of the assessment based programs that will require time to transition to the new Plan. However, MidAmerican collaborated with current and prospective contractors to minimize the transition period. MidAmerican is anticipating the Board will render a decision on this Plan no later than the end of fourth quarter 2013. Over the course of the Plan, MidAmerican will incorporate all matters as directed by the Board through its approval of portions of the Settlement Agreement and its resolution of contested issues.

Additionally, in support of energy efficiency policy objectives and pursuant to the Board's Final Order in MidAmerican's 2014-2018 Energy Efficiency Plan, MidAmerican will:

- Incorporate a collaboration plan for 2014-2018 (See Support Functions)
- Strive to find cost-effective, customer-centered, performance-based incentives for vendors/contractors that motivate customer engagement, energy efficiency market development, and market transformation. MidAmerican will report on these efforts at its Fall Operations Meeting through the Collaborative Process.
- Incorporate and oversee provisions for third-party contracting in its requests for proposal (RFP) process for Outside Services used to administer programs.
- Develop and share a formal marketing and advertising strategy for its portfolio at the October/November collaborative stakeholder meeting.

The table below summarizes the programs included in the Plan, as well as program marketing names and target markets (by fuel).

Summary of Iowa Programs

Program	Marketing Name (where applicable)	Fuel	
		Natural Gas	Electric
Residential			
Residential Equipment		✓	✓
Residential Assessment	HomeCheck® Online; HomeCheck®	✓	✓
Residential New Construction	New Homes	✓	✓
Residential Load Management	SummerSaver℠		✓
Residential Behavioral	Home Energy Reports	✓	✓
Residential HVAC Tune Up		✓	✓
Nonresidential			
Nonresidential Equipment (including custom equipment track)		✓	✓
Commercial Assessment Program		✓	✓
Industrial Partners		✓	✓
Commercial New Construction		✓	✓
Nonresidential Load Management	Curtailment		✓
Multiple-Sectors			
Appliance Recycling			✓
Upstream Retail Lighting	*Be Bright!*		✓
Low-Income		✓	✓
Multifamily Housing		✓	✓
Agriculture		✓	✓
Education		✓	✓
Trees	*Trees Please!*; Plant some shade®; Trees for Kids/Trees for Teens	✓	✓
Assessments		✓	✓

The table below summarizes the changes to MidAmerican's 2009-2013 plan that are included in the proposed Plan.

2014-2018 Plan Changes

Program	Markets Served	Changes/Details
New Programs		
Residential HVAC Tune Up	Residential customers	• Encouraging customers to properly maintain and improve the performance of existing HVAC systems.
Upstream Retail Lighting	Residential and nonresidential customers	• Transitioning the existing *Be Bright!* Campaign to its own program. Point-of-sale discounts received on CFLs, specialty and LED lamps and fixtures.
Discontinued Programs/Initiatives		
Home Performance with ENERGY STAR®	Residential customers	• Low customer participation during pilot.
Efficiency Bid	1MW and larger industrial customers	• Many of the customers who originally participated in Efficiency Bid are now participating in the Industrial Partners program. No program activity.
Third Party	Residential and nonresidential customers	• This program is discontinued in the new Plan, but successful aspects of it will be moved to Residential Behavioral and Commercial Assessments programs.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Residential Assessments	Residential single family customers	• Adding additional direct install measures – Smart Strip and LED lamp. • Offering bonus incentives to encourage customers to install multiple recommended measures identified during the assessment. • Partnering with Neighborhood Associations to encourage participation. Offering bounty to association for number of participants completing assessments and specific follow-up measures. • Adding HVAC tune up coupon.
Residential Prescriptive Rebates	Residential customers	• Improving the quality of equipment installation by requiring all HVAC equipment to be installed by a SAVE certified contractor in order to receive rebates. 100% of quality installation cost covered by incentive. • Significantly increasing incentives for HVAC equipment. • Moving the *Be Bright!* promotion to a stand-alone program. • Eliminating some measures with low participation and low cost-effectiveness such as furnaces, and water heaters.
Residential New Construction	Residential builders and homeowners	• Removing one prescriptive path (BOP) to encourage builders to construct higher energy efficient home. • Reducing required measures and incentives in the prescriptive path to adjust for new building codes.
Low-Income EnergyWise Education Component	Income-qualified residential customers	• Adding window wrap and one additional compact fluorescent lamp to the kit based on feedback from Community Action Program agencies.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Low-Income Home Energy Reports Component	20,000 randomly selected LIHEAP enrolled combination (electric and natural gas) service customers	• Adding Home Energy Report with energy savings tips tailored toward low income customers. Approximately 6 reports per year will be delivered.
Residential Behavioral	170,000 randomly selected combination (electric and natural gas) service customers	• Adding Home Energy Report with energy savings tips. Approximately 6 reports per year will be delivered. Currently, 50,000 combination service customers receive reports as part of a pilot in the Third Party program.
Nonresidential Prescriptive Rebates	Nonresidential customers	• Adding prescriptive incentives for new measures. • Exploring an upstream incentive mechanism for motors and variable-speed drives. • Significantly increasing incentives for HVAC equipment. • Eliminating some measures with low participation and low cost-effectiveness. • Including a "custom track" for those energy efficiency projects or purchases of efficient equipment that do not fit into MidAmerican's other specific nonresidential equipment programs. (Previously the Custom Systems program.)

Commercial Assessment	All commercial customers	Offering two types of business assessments to business owners for a wide range of facility types and sizes. The two tracks include:
		• Track I – Assessments for small and large commercial customers tailored to meet the customer's needs.
		  ○ Additional direct install measures for small commercial assessments.
		• Track II – Building Tune Up/Retrocommissioning (Previously offered in a pilot program and detailed studies, respectively).
		  ○ Building Tune Up incentive is 50/50 cost share
		  ○ Retro commissioning incentive is 100% of the cost.
		• Bonus incentives for installing multiple projects.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Industrial Partners	All industrial customers	• Promoting comprehensive efficiency strategies in large existing industrial facilities only. Commercial customers will now be served through the Commercial Assessment program. • Simplifying the bonus incentive structure in an effort to encourage participation and increase customer satisfaction. Enhanced incentives will continue to be offered for multiple implemented projects. • Offering the option of receiving additional technical assistance with project implementation which may include: o Providing independent third-party owner's representation. o Developing detailed requests for proposals on committed projects. o Obtaining and reviewing vendor bids. o Performing and/or refining energy analysis as project scope matures. o Acquiring and reviewing trend data as required by the program or to help inform an investment decision. o Assisting with applications for rebate, measurement and verification of energy impacts, etc.
Commercial New Construction	New commercial construction, additions or major renovations	• Offering an ongoing performance track for projects completed through the Commercial New Construction program for customers interested in additional assistance to achieve ongoing performance and increased energy savings.
Appliance Recycling		• Adding home energy savings kit as leave behind package for participants.
Multifamily Housing	Buildings with four or more units	• Removing the performance track or whole building retrofit track of the program due to lack of participation.

Program	Markets Served	Changes/Details
Enhancements and Changes to Existing Programs		
Education	All residential and nonresidential customers	• Investigating the addition of grades 7 - 9 to curriculum offerings for *eSMARTkids*. • Making improvements to Trade Ally Central website to provide greater resources for customers to understand our programs and find reliable trade allies to assist them in completing their energy efficient project or purchases of equipment. • Expanding strategic relationships with trade allies and organizations in order to move our mutual customers to high efficiency equipment purchases and installation on a regular basis. • Offering information and technical assistance regarding renewable technologies.
Agriculture	Farms and agribusiness customers on residential and nonresidential rate schedules	• Including a CFL exterior lamps direct install measure.
Trees	All customers	• Adding a component for contributions to a trees fund for MidAmerican customers who sign up for electronic billing, making the successful pilot offering permanent.

Program List

Residential programs

Residential Equipment – This program provides rebates to encourage customers to purchase high-efficiency space conditioning equipment, water heating equipment and appliances. The program also encourages quality installation of heating and cooling equipment by tying rebates for HVAC equipment to quality installation by a SAVE (System Adjustment & Verified Efficiency) certified contractor.

Residential Assessment – This program provides free energy assessments, energy savings suggestions, direct installation of simple energy-efficiency measures and rebates for more extensive building shell retrofits. There are two assessment options available to customer:

- HomeCheck®, which provides participants with an on-site energy assessment.
- HomeCheck® Online, which allows customers to perform Internet-based assessment of their own homes.

The program will offer enhanced incentives for completion of multiple projects identified during the assessment. Additionally, a HVAC tune up coupon will be given to on-site participants to encourage them to have their HVAC tune up completed by a SAVE-certified contractor.

Residential New Construction – This 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. Additionally, the program provides the homeowner with a certificate, which is recognized by the real estate community as evidence that the home is highly energy efficient.

Residential Behavior – This 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 provides smart ways to make their homes more efficient. This program was previously included under the Third-Party program in Docket No. EEP-08-2.

Residential Load Management – This program provides financial incentives to customers that allow MidAmerican to control their central air conditioning on summer peak days.

Residential HVAC Tune Up – This new program promotes the proper maintenance and operation of heating and cooling systems by residential customers in existing homes. The program provides customers with rebates to offset the cost of increasing the efficiency of existing equipment and utilizes participating contractors that have been SAVE-certified. Targeted equipment includes heating and cooling equipment and ductwork.

Nonresidential programs

Nonresidential Equipment – This program provides rebates to encourage customers to purchase specified efficient heating, cooling, water heating, lighting, motor, variable speed drives, commercial kitchen equipment and insulation measures. The Nonresidential Custom program included in the previous plan is now the "custom track" included in this Plan's Nonresidential Equipment program. The custom track encourages customers to pursue energy efficiency projects or purchase efficient equipment that does not fit into MidAmerican's other specific nonresidential equipment programs.

Commercial Assessment – This program promotes comprehensive energy efficiency for existing commercial buildings, regardless of size. The program will offer services through two program tracks, tailored to the unique needs of commercial customers; Track I – Assessments and Track II – Building Tune Up/Retrocommissioning. The goal of a building tune up is to find easy to fix items that will enhance building performance and reduce energy consumption. Examples of corrective measures might include scheduling programmable thermostats, adjusting/adding economizers, repairing failed actuators, and adjusting minimum outside air percentages. The goal of traditional retrocommissioning is to optimize existing building systems and reduce energy consumption. Examples of corrective measures might include optimizing economizer and ventilation controls, improving equipment sequencing and scheduling, and optimizing fans and pumps. It is important to note that energy saving opportunities in existing stand-alone data centers and internal server rooms and server closets will be pursued and leveraged through the Commercial Assessments program; while energy saving opportunities for new data centers will be pursued through the Commercial New Construction program.

Industrial Partners – This program provides expert advice and assistance to organizations to improve the energy performance of existing industrial facilities. Through this program, MidAmerican Energy offers no-cost facility-wide or system-specific assessments as well as a comprehensive system optimization study option.

Commercial New Construction – This program promotes the design and construction of high-efficiency commercial buildings, including new building construction as well as major renovations of existing buildings. The program is delivered in partnership with developers, architects, engineering firms and equipment contractors and provides a mix of technical and financial assistance to help influence projects during the planning stage. Energy design assistance and construction incentives are offered to reduce market barriers to incorporating energy efficiency in construction projects. The program will offer services through five program tracks, tailored to the varying needs of different market segments. Newly constructed data centers are served through the Commercial New Construction program and will be placed in the appropriate track. Due to the energy intensity of these building types, they are prime targets for energy efficient design measures. Energy saving design opportunities will be identified for the customer's unique data center environment.

Nonresidential Load Management – This program provides commercial and industrial customers with financial incentives in return for agreeing to reduce electric demand during peak hours when notified by MidAmerican's internet-based monitoring and communication system.

Multiple-sector programs

Appliance Recycling – This program offers financial incentives to 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.

Upstream Retail Lighting – This program promotes the purchase of energy-efficient equipment by customers in new and existing buildings. The program coordinates with upstream suppliers and retailers providing customers with in-store rebates to offset the higher purchase cost of efficient lighting. The program will offer standard and specialty ENERGY STAR® CFL and LED lighting products. The program is marketed under the name *Be Bright!* This program was previously included under the Residential Equipment program in Docket No. EEP-08-2.

Low-Income – This program provides free weatherization services, including installation of lighting, water heating and insulation measures and replacement of inefficient furnaces, water heaters, refrigerators and freezers. The program also distributes thousands of free energy efficiency kits to qualifying customers and provides energy efficiency services to multifamily and institutional housing projects. Approximately 20,000 Home Energy Reports containing low-cost and no cost energy efficiency tips will be sent to Low Income Home Energy Assistance Program (LIHEAP) eligible customers through this program.

Multifamily Housing – This program provides a comprehensive set of services and financial incentives to help multifamily property owners, property managers, landlords and renters improve the efficiency of existing buildings.

Agriculture – The program provides comprehensive on-site energy assessments to identify areas of high energy use, recommend energy-savings opportunities, and provide information on available

incentives. The program promotes the purchase of high-efficiency equipment by agricultural customers through prescriptive and custom incentives.

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

Trees – This program promotes tree planting through four different program components, Plant some shade®, Trees Please!, Trees for Kids/Teens and Trees for E-bills. Each component provides grants or other financial incentives as well as educational materials targeting a specific customer segment.

Budgets

Anticipated five-year spending for the 2014-2018 Iowa energy efficiency Plan is shown in the table below. MidAmerican proposes a budget of nearly $559 million in energy efficiency over the five-year period, with $288 million of that for residential customers and $257 million for nonresidential customers. MidAmerican's accounting systems will ensure that costs for providing the programs are recovered from the appropriate customers.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 12,326,550	$ 58,573,360	$ 70,899,910
2015	$ 12,577,161	$ 61,084,946	$ 73,662,107
2016	$ 12,898,223	$ 63,198,709	$ 76,096,932
2017	$ 13,235,022	$ 65,554,329	$ 78,789,351
2018	$ 13,579,269	$ 67,681,114	$ 81,260,383
Total	$ 64,616,225	$ 316,092,458	$ 380,708,683

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 5,783,821	$ 26,185,352	$ 31,969,173
2015	$ 5,916,290	$ 27,560,430	$ 33,476,720
2016	$ 6,075,367	$ 28,986,661	$ 35,062,028
2017	$ 6,235,266	$ 30,856,403	$ 37,091,669
2018	$ 6,400,333	$ 32,556,551	$ 38,956,884
Total	$ 30,411,077	$ 146,145,397	$ 176,556,474

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 18,110,371	$ 84,758,712	$ 102,869,083
2015	$ 18,493,451	$ 88,645,376	$ 107,138,827
2016	$ 18,973,590	$ 92,185,370	$ 111,158,960
2017	$ 19,470,288	$ 96,410,732	$ 115,881,020
2018	$ 19,979,602	$ 100,237,665	$ 120,217,267
Total	$ 95,027,302	$ 462,237,855	$ 557,265,157

Detailed budgets by spending category and staffing assumptions in full-time equivalents (FTEs) for each program is provided in Appendix B.

Energy Savings

MidAmerican expects to help customers install over 9.3 million energy-efficiency measures in their homes and businesses over the next five years. By 2018 these measures are expected to reduce MidAmerican's annual energy requirements by over 32 million therms of natural gas and 1,086 million kilowatt-hours of electricity. Summer peak electric demand for Iowa customers is also expected to be reduced by nearly 508 megawatts.

Anticipated savings levels for the 2014-2018 Iowa energy efficiency Plan are as follows.

Electric Savings	Annual kWh	Peak kW
2014	242,676,657	346,923
2015	258,293,696	386,727
2016	257,157,205	425,206
2017	260,310,331	465,155
2018	262,549,083	507,636
Total	1,280,986,972	2,131,647

Gas Savings	Annual Therms	Peak Therms
2014	6,681,546	75,326
2015	7,099,366	142,402
2016	7,311,815	209,848
2017	7,602,924	282,015
2018	7,859,584	357,978
Total	36,555,235	1,067,569

The installed measures will continue to save customer energy and money for many years. MidAmerican has established annual electricity savings targets ranging from 1.16 to 1.21 percent of its retail sales forecast.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 1,210,291,985	$ 442,122,334	$ 1,642,414,319
Program Costs	$ 501,818,728	$ 243,270,328	$ 745,089,056
Net Economic Benefits	$ 708,473,527	$ 198,852,006	$ 897,325,263
Societal Test Ratio	2.41	1.82	2.20

Overall the programs are expected to create net benefits to Iowa's customers of approximately $900 million. The benefit-cost ratio for the programs is 2.20.

That translates to lower energy supply costs of $2.20 for every dollar invested in MidAmerican's energy efficiency programs.

Managing Participation and Budgets

In this filing, MidAmerican provides budget estimates for each program and year based on estimates of participation and rebate levels for each measure offered in each program. MidAmerican has based these estimates on the findings of the joint-utility Assessment of Energy and Capacity Savings Potential in Iowa and its experience with offering programs in Iowa, with adjustments for known changes. For any program and any year, participation and spending may vary substantially from the estimates for a variety of reasons beyond MidAmerican's control.

Organization of the Plan

The remainder of Plan provides additional details on the Plan programs and their expected results. After this introduction, the report includes the following:

- Residential program descriptions
- Nonresidential program descriptions
- Multi-sector program descriptions
- Support services required to deliver the programs including MidAmerican's accounting and monitoring and evaluation plans
- Technical details and supplemental material needed to be in compliance with the Plan's filing requirements are organized in Appendix A through C

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential Equipment Program

Description of Program

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. The program is marketed under the name Residential Equipment program.

The program is available to all residential customers and landlords for both new and existing buildings in MidAmerican's Iowa service area. Program measures must save energy supplied directly by MidAmerican.

Measure List

The Residential Equipment program provides rebates and incentives for the following measures:

- Natural gas furnaces
- Central and window air conditioners
- Air source and ground source heat pumps
- Quality installation – central air conditioner, air source heat pumps, ground source heat pumps, natural gas furnaces
- Furnace fan
- Window air conditioners
- Programmable thermostats
- Appliances – clothes washers, freezers, and refrigerators
- Heat pump water heaters

Financing is available for windows, doors and insulated vinyl siding through the Residential Assessment program.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential Equipment program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,047,814	$ 9,568,656	$ 10,616,470
2015	$ 1,074,010	$ 9,816,056	$ 10,890,066
2016	$ 1,100,860	$ 10,038,820	$ 11,139,680
2017	$ 1,128,382	$ 10,269,760	$ 11,398,142
2018	$ 1,156,592	$ 10,475,935	$ 11,632,527
Total	$ 5,507,658	$ 50,169,228	$ 55,676,886

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 449,063	$ 10,249,154	$ 10,698,217
2015	$ 460,290	$ 10,824,268	$ 11,284,558
2016	$ 471,797	$ 11,394,128	$ 11,865,925
2017	$ 483,592	$ 11,970,951	$ 12,454,543
2018	$ 495,682	$ 12,273,251	$ 12,768,933
Total	$ 2,360,424	$ 56,711,752	$ 59,072,176

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,496,877	$ 19,817,810	$ 21,314,687
2015	$ 1,534,300	$ 20,640,324	$ 22,174,624
2016	$ 1,572,657	$ 21,432,948	$ 23,005,605
2017	$ 1,611,974	$ 22,240,712	$ 23,852,686
2018	$ 1,652,274	$ 22,749,186	$ 24,401,460
Total	$ 7,868,082	$ 106,880,980	$ 114,749,062

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential Equipment program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	21,108,970	6,147
2015	21,979,377	6,306
2016	22,803,941	6,461
2017	23,651,019	6,618
2018	24,500,595	6,775
Total	114,043,903	32,306

Gas Savings	Annual Therms	Peak Therms
2014	2,371,501	28,931
2015	2,486,146	30,395
2016	2,598,340	31,854
2017	2,711,767	33,316
2018	2,785,260	34,257
Total	12,953,014	158,753

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 168,149,353	$ 185,051,863	$ 353,202,216
Program Costs	$ 108,394,329	$ 102,109,562	$ 210,503,890
Net Economic Benefits	$ 59,755,024	$ 82,942,301	$ 142,697,325
Societal Test Ratio	1.55	1.81	1.68

Operations

Description of Operations

The Residential Equipment program provides rebates to customers who purchase qualifying energy efficient equipment or quality installations. The program is delivered in partnership with heating and cooling dealers as well as retail outlets selling qualifying equipment.

Key steps in program participation include:

- **Equipment purchase** – The customer purchases eligible equipment or quality installation.
- **Rebate or financing** – The customer chooses between the rebate or low interest financing. The program implementation contractor assists the customer through the financing process, if financing is selected.
- **Program application** – The customer fills out an application to identify the eligible equipment or quality installation along with the associated costs. The customer mails the completed application to the program contractor.
- **Equipment qualification** – The program contractor determines whether the equipment is eligible for an incentive.
- **Quality installation qualification** – The program contractor determines whether the installation is eligible for an incentive. The participating dealers need to meet training requirements and follow defined installation protocols.
- **Rebate or financing processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – Where appropriate, the program contractor verifies that equipment installation meets program guidelines.

Description of Outside Services

MidAmerican staff provide overall strategic direction for the program, as well as conduct research and development, promotion, trade ally support, evaluation and other administrative functions.

One program contractor supports the program. The contractor handles processing applications, tracking program data, answering questions from dealers and customers, verifying equipment installations and coordinating rebate distribution to customers.

MidAmerican currently contracts with A-TEC Energy Corporation a for management and administrative services and First American Bank for financing. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits.

- Customers save money in the short term through rebates and in the long term through lower utility bills.
- Customers receive reliable advice about high quality, energy-efficient equipment from a trustworthy source.
- The process is simple and straightforward. Equipment rebates are accessible to any qualifying customer for any qualifying equipment.

Market Barriers

The table below presents the key market barriers to an effective residential equipment program, and strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Higher first cost of energy-efficient equipment	Offer rebates and discounted financing Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Time required to fill out rebate forms	Provide simple rebate forms through a variety of media (mail-in, online) Allow trade allies to fill in rebate forms for customers at the time of equipment purchase
Customers don't bother to look for qualifying measures	Trade ally training to help customers quickly identify appropriate measures and products Provide in-store brochures and collateral Market program and general efficiency awareness to customers Provide efficiency education to customers
Trade allies not up-selling to high-efficiency equipment	Provide trade ally training and outreach to explain the benefits of selling higher efficiency equipment Market program and general efficiency awareness to trade allies
Lack of availability of qualifying equipment	Promote programs to customers so they ask for qualifying equipment and dealers stock it Provide trade ally training
Customers don't understand the long-term value of high-efficiency equipment	Train trade allies to explain life-cycle costs to customers Market program and general efficiency awareness to customers Provide efficiency education to customers
Dealers are unaware of program	Provide outreach and marketing to dealers

Incentives

The program offers the following types of financial incentives to participants.

- **Rebates** – Rebates are offered on a per-meaure basis to program participants installing qualifying equipment. For some equipment the rebate will be a fixed amount per measure while, for other equipment, the rebate will increase with increasing equipment efficiency. Other incentives will encourage quality installation practices for specific heating and cooling equipment.
- **Financing** – Subsidized financing is available as an alternative to rebates for selected measures.

MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as market conditions change.

MidAmerican will continue to monitor CEE Tier 2 and 3 products and other cost effective measures for possible inclusion in future years of its Plan. Reasoning for not including cost-effective measures will be shared during the fall collaborative meetings.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential customers using traditional marketing channels and provide education and outreach to customers, trade allies and industry organizations to encourage customer participation and implementation of energy efficient measures and equipment.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjusts materials as needed based on program adjustments and market characteristics.

Customer Targets

The target market for this program includes residential customers and landlords of residential customers in existing and new housing. The program also uses tariff rates (those used by residential customers) to target and qualify customers.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Residential electric rate	Residential natural gas rate
Customer Status	Customer homeowners	Customer homeowners
Building Type	Single-family; Multi-family; Mobile home	Single-family; Multi-family; Mobile home
Building Vintage	Existing and new construction	Existing and new construction
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory

Trade Ally Targets

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- HVAC dealers and contractors
- Plumbing and mechanical contractors
- Appliance dealers
- Retail outlets

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will promote the program through articles that will periodically appear in a quarterly newsletter that is sent with customer bills. The articles will reference the energy efficiency website, which features a dedicated Web page that includes program information and qualification requirements, an online form, and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills.

MidAmerican call center associates will recommend the program to likely participants and, when appropriate, transfer customers to the program call center operated by the program contractor.

Program referrals are also expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-

efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential Assessment Program

Description of Program

The Residential Assessment program promotes efficiency strategies for existing residential customers. It provides online energy assessments, more extensive on-site energy assessments, direct installation of low-cost efficiency measures, and recommendations for additional measures. The program is marketed under the registered trademark name HomeCheck®.

The on-site assessment is available to residential and multifamily homes that receive electric or natural gas heating fuel supplied directly from MidAmerican. The on-site assessment is designed to evaluate energy use in homes over 10 years old. The online assessment is available to all customers.

Measure List

The Residential Assessment program provides rebates and incentives for the following measures:

Assessments

- Single-family
- Multifamily – with three or less residential living units

Direct Install Measures

- Pipe insulation
- Faucet aerators
- Kitchen aerators
- Low flow showerheads
- Water heater blankets
- Thermostats
- Compact fluorescent lamps (CFL)
- Light emitting diode (LED)
- Smart strip

Any prescriptive measure included in the Residential Equipment program is potentially eligible for rebate under the Residential Assessment program. Typical measures include:

- Insulation* – wall and attic/foundation/band joist
- Duct insulation*
- Infiltration
- Financing for windows, doors and insulatied vinyl siding

* Customers are eligible for an incentive for insulation measures only if a home assessment is completed.

Other

- Enhanced incentives for completion of multiple recommendations identified during the assessment
- Neighborhood outreach
- HVAC tune up coupon to encourage on-site assessment participants to contact a SAVE-certified contractor

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential Assessment program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 324,144	$ 1,532,750	$ 1,856,894
2015	$ 332,248	$ 1,585,427	$ 1,917,675
2016	$ 340,554	$ 1,644,548	$ 1,985,102
2017	$ 349,068	$ 1,693,393	$ 2,042,461
2018	$ 357,795	$ 1,793,013	$ 2,150,808
Total	$ 1,703,809	$ 8,249,131	$ 9,952,940

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 601,982	$ 2,535,983	$ 3,137,965
2015	$ 617,032	$ 2,609,828	$ 3,226,860
2016	$ 632,458	$ 2,699,489	$ 3,331,947
2017	$ 648,269	$ 2,768,255	$ 3,416,524
2018	$ 664,476	$ 2,951,371	$ 3,615,847
Total	$ 3,164,217	$ 13,564,926	$ 16,729,143

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 926,126	$ 4,068,734	$ 4,994,860
2015	$ 949,280	$ 4,195,255	$ 5,144,535
2016	$ 973,012	$ 4,344,037	$ 5,317,049
2017	$ 997,337	$ 4,461,648	$ 5,458,985
2018	$ 1,022,271	$ 4,744,384	$ 5,766,655
Total	$ 4,868,026	$ 21,814,057	$ 26,682,083

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential Assessment program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	2,550,835	810
2015	2,626,209	837
2016	2,695,862	862
2017	2,743,623	879
2018	2,892,143	929
Total	13,508,672	4,317

Gas Savings	Annual Therms	Peak Therms
2014	524,513	6,253
2015	541,587	6,459
2016	557,487	6,651
2017	568,534	6,784
2018	600,509	7,168
Total	2,792,630	33,316

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 18,450,769	$ 46,860,502	$ 65,311,271
Program Costs	$ 10,802,826	$ 19,824,847	$ 30,627,673
Net Economic Benefits	$ 7,647,943	$ 27,035,656	$ 34,683,598
Societal Test Ratio	1.71	2.36	2.13

Operations

Description of Operations

The on-site assessment is the primary entry point for participation by MidAmerican residential customers in its energy efficiency programs. This typically leads to completion of follow-up measures or participation in other MidAmerican energy efficiency programs.

Key steps in program participation include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **On-site assessment completion** – The program contractor evaluates eligibility for additional measures eligible for financial incentives, reviews energy usage and cost patterns

found in historic energy bills, informs customers of ways to operate home energy systems more efficiently, installs simple energy efficiency measures, and provides contact information as well as information regarding how to participate in MidAmerican's incentive programs.

- **Assessment report** – The program contractor provides the homeowner an assessment report during the on-site assessment that includes recommendations for energy efficiency improvements. The information packet also provides website addresses for additional rebate information and applications.
- **Rebate or financing** – The customer chooses between the rebate or low interest financing. The program contractor assists the customer through the financing process.
- **Program application** – When customers install recommended measures, they submit application forms for review and processing.
- **Rebate or financing processing and database maintenance** – The program contractor and MidAmerican staff process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of insulation installations as well as all self-installed projects.

The program also offers an online energy assessment tool that gives customers an opportunity to evaluate their own energy usage and provides recommendations for efficiency improvements. Customers using the online tool also can request an on-site assessment by completing a simple online form.

Description of Outside Services

MidAmerican staff provide overall strategic direction for the program, as well as conduct research and development, promotion, evaluation and other administrative functions.

MidAmerican uses a program contractor to help deliver the program. The contractor handles program enrollment, data tracking, rebate processing, and works directly with customers to conduct the on-site energy assessments.

MidAmerican currently contracts with A-TEC Energy Corporation for program delivery and administrative services and First American Bank for financing. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

MidAmerican will incorporate provisions for third-party subcontracting and performance based criteria into its RFP process with the next contract.

Value Proposition

Customers participating in the program receive the following main benefits:

- A whole-house assessment and trustworthy energy-savings recommendations from trained auditors.
- Immediate savings through the direct installation of low-cost lighting, water heating and other energy-saving measures.
- Significant savings, increased comfort and increased property values through rebates on insulation, lighting and other efficiency projects.

- Lower hassle by relying on program processes for scheduling assessments, identifying efficiency measures, maintaining quality control and providing follow-through on savings recommendations.

Market Barriers

The table below presents the key market barriers to an effective residential assessment program, and strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Lack of customer awareness	Provide customer marketing and outreach to individual customers and communities Provide efficiency education
Limited time, resources and awareness of how to act on recommendations	Provide robust trade ally network and referral program to help identify appropriate contractors Provide follow-up letters to encourage customers to move through installation steps Give information about simple behavioral changes and maintenance tips that provide ongoing savings Provide efficiency education Provide a bonus rebate for implementing multiple measures
Low dealer awareness	Provide outreach and education to dealers
High incremental cost of efficient equipment	Provide no-cost, on-site energy assessments and direct installation measures for immediate savings Provide rebates and financing for more expensive measures
Customers don't trust energy-savings calculations	Provide savings estimates from trusted MidAmerican sources, including online assessment software, trained HomeCheck auditors

Incentives

The program offers the following types of financial incentives to participants.

- **No cost energy assessments** – No cost energy assessments are offered for HomeCheck Online and HomeCheck participants.
- **Full subsidies** – Full subsidies are offered for most low-cost measures directly installed during the assessment. This strategy is intended to fully overcome market barriers concerning cost, perceived quality and time and effort to install.

- **Rebates** – Rebates are offered for insulation and infiltration measures. Rebates are set at either a percent of qualified installation costs, or per linear foot of band joist insulation. Bonus rebates will be available for customers installing multiple follow-up measures.
- **Financing** – Subsidized financing is available as an alternative to rebates to HomeCheck participants for qualified insulation and infiltration measures. Qualified window measures are not eligible for rebates, but are eligible for financing and do not require pre-qualification by a HomeCheck assessment.
- **Promotional bounties** – Promotional bounties will be offered to neighborhood groups who organize and schedule energy assessments in their neighborhood.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential customers using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and neighborhood organizations, to encourage customer participation and implementation of energy efficient measures and equipment. MidAmerican's neighborhood outreach efforts will include an opportunity for local community organizations to raise money by coordinating and motivating program participation. The organizations will earn an incentive for each assessment and specific follow-up measures completed during a limited promotion timeframe.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjusts materials as needed based on program adjustments and market characteristics.

Customer Targets

This program is available to all residential customers in existing housing, with eligibility varying by program component. HomeCheck Online is available to all customers. MidAmerican provides HomeCheck on-site assessments to customers (and their landlords) in buildings more than 10 years old and who purchase heating fuel directly from MidAmerican. Additionally, MidAmerican coordinates HomeCheck assessments and financial incentives with other utilities providing heating fuel to MidAmerican customers (e.g., customers purchasing electricity from MidAmerican and natural gas from another utility).

Customers in rental housing must have approval from building owners to participate in the HomeCheck assessment. Multifamily buildings, defined as buildings with four or more housing units, will be served under MidAmerican's Multifamily Housing program, although all customers have access to HomeCheck Online.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	HomeCheck Online	HomeCheck		
		Assessment	Low-Cost Measures	Insulation Rebate
Customer Class	Residential rates	Residential rates	Residential rates	Residential rates
Customer Status	All	Homeowners Landlords	Homeowners Landlords	Homeowners Landlords
Building Type	Single-family Multifamily Mobile home	Single-family Mobile home	Single-family Mobile home	Single-family
Building Vintage	All	> 10 years old	> 10 years old	> 10 years old
Geography	All	Iowa	Iowa	Iowa
Other	N/A	MidAmerican provides heating fuel	MidAmerican provides affected fuel	Pre-qualified during on-site assessment

Trade Ally Targets

The HomeCheck component also maintains a list of preferred insulation and infiltration contractors who meet its quality-control requirements. These trade allies will be recommended to MidAmerican customers for installation of suggested energy efficiency measures (although customers may choose to install measures on their own or through non-network contractors). MidAmerican also will work with trade allies throughout the state to make them aware of the program and its benefits. The following types of trade allies are predominant:

- Insulation contractors
- Window and door dealers
- Vinyl siding dealers

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will promote the program through articles periodically appearing in a quarterly newsletter that is sent with customer bills. The articles will reference the energy efficiency website, which features a dedicated Web page that includes program information and qualification requirements, an online form to submit contact information to schedule an assessment, and a

program brochure. A reference to the energy efficiency website will appear quarterly on customer bills.

MidAmerican call center associates will recommend the program to likely participants and when appropriate, transfer customers to the program call center operated by the program contractor. Additionally, MidAmerican will target neighboring customers by delivering door hangers at the homes adjacent to a scheduled assessment and generate 'word of mouth' advertising after an assessment.

Program referrals are also expected from insulation trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential New Construction Program

Description of Program

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. Additionally, the program provides the homeowner with a certificate, which is recognized by the real estate community as evidence that the home is highly energy efficient.

The program is available to all residential builders in MidAmerican's Iowa service area. Program measures must save energy supplied directly by MidAmerican.

Measure List

The Residential New Construction program provides rebates and incentives for the following measures:

- ENERGY STAR homes – single family
    - ENERGY STAR homes must be third party verified to meet the most current requirements of the ENERGY STAR new homes program showing that the home exceeds industry building standards and is at least 15% more efficient than code.
- ENERGY STAR homes – multifamily
    - ENERGY STAR homes must be third party verified to meet the most current requirements of the ENERGY STAR new homes program showing that the home exceeds industry building standards and is at least 15% more efficient than code.
- Advanced Builder Option Program (ABOP) homes
    - A less restrictive program option for single family homes. Homes must meet minimum thresholds for Home Energy Rating System (HERS) Rating , System Adjustment and Verified Efficiency (SAVE) System score, demonstrate code compliance and other specified design requirements.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential New Construction program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 215,579	$ 3,726,296	$ 3,941,875
2015	$ 220,968	$ 3,740,969	$ 3,961,937
2016	$ 226,492	$ 3,745,996	$ 3,972,488
2017	$ 232,154	$ 3,754,438	$ 3,986,592
2018	$ 237,958	$ 3,729,994	$ 3,967,952
Total	$ 1,133,151	$ 18,697,693	$ 19,830,844

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 300,869	$ 1,782,804	$ 2,083,673
2015	$ 308,391	$ 1,768,131	$ 2,076,522
2016	$ 316,101	$ 1,763,104	$ 2,079,205
2017	$ 324,004	$ 1,754,662	$ 2,078,666
2018	$ 332,104	$ 1,779,106	$ 2,111,210
Total	$ 1,581,469	$ 8,847,807	$ 10,429,276

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 516,448	$ 5,509,100	$ 6,025,548
2015	$ 529,359	$ 5,509,100	$ 6,038,459
2016	$ 542,593	$ 5,509,100	$ 6,051,693
2017	$ 556,158	$ 5,509,100	$ 6,065,258
2018	$ 570,062	$ 5,509,100	$ 6,079,162
Total	$ 2,714,620	$ 27,545,500	$ 30,260,120

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential New Construction program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	4,800,827	3,259
2015	4,800,827	3,259
2016	4,800,827	3,259
2017	4,800,827	3,259
2018	4,800,827	3,259
Total	24,004,135	16,294

Gas Savings	Annual Therms	Peak Therms
2014	408,748	5,316
2015	408,748	5,316
2016	408,748	5,316
2017	408,748	5,316
2018	408,748	5,316
Total	2,043,740	26,578

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 57,454,340	$ 24,530,944	$ 81,985,284
Program Costs	$ 36,579,347	$ 18,062,129	$ 54,641,476
Net Economic Benefits	$ 20,874,993	$ 6,468,815	$ 27,343,809
Societal Test Ratio	1.57	1.36	1.50

Operations

Description of Operations

This program is delivered in partnership with developers and building contractors who promote the program to prospective home buyers and receive rebates to help offset the cost of efficient building practices.

Builders must work within the framework of the Residential Energy Services Network (RESNET) accredited Home Energy Rating System (HERS) to receive qualifying HERS ratings for the Advanced Builder Option Package or the ENERGY STAR® path.

Key steps in program participation include:

- **Pre-registraton** – The builder registers the home with the program implementation contractor at the beginning of the construction process.
- **Meeting specifications** – The builder completes the home to meet program specifications.
- **Obtain HERS certification** – The builder works with a HERS rater to show compliance with program specifications.
- **Program application** – The builder submits application forms including the HERS rating for review and processing.
- **Verification** – The program contractor conducts verification on a sample of homes.
- **MidAmerican certification** – The program implementation contractor ensures the home is reported to ENERGY STAR or the MidAmerican New Homes certificate is sent to the builder for ABOP homes.
- **Rebate and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, as well as conducts research and development, promotion, trade ally support, evaluation and other administrative functions.

One program contractor supports the program. The contractor handles processing applications, tracking program data, answering questions from dealers and customers, verifying equipment installations and coordinating rebate distribution to builders.

MidAmerican currently contracts with A-TEC Energy Corporation for program delivery and administrative functions. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers and builders participating in the program receive three main benefits:

- Financial benefits in the form of rebates to offset equipment and building costs, lower monthly energy bills and potentially higher housing values.
- Confidence in their new homes from independent certification that they incorporate energy-efficient building practices.
- Greater comfort due to energy-efficient features that keep out excessive heat, cold and noise and maintain consistent interior temperatures.

Market Barriers

The table below presents the key market barriers to a successful residential new construction program and strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Higher first cost of energy-efficient equipment and building measures	Offer rebates to help offset measure incremental costs Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Time required to fill out rebate forms	Offer rebates that are generous enough to offset time requirement Use a streamlined, efficient and responsive program process
Lack of customer awareness of high-efficiency alternatives	Provide trade ally training to help customers quickly identify appropriate measures and products Support program with education appropriate to different types of program participants (e.g., builders, homeowners, etc.)
Customers value design features and finishes over high-efficiency equipment	Raise customer awareness through educational materials showing long-term financial, comfort and social benefits of efficient homes Focus on long-term benefits of energy efficiency features Provide rebates to lower incremental cost of efficiency features
Low customer awareness of program	Ongoing trade ally communications and outreach Marketing and outreach to targeted customers and builders
Lack of availability of premium equipment	Promote programs to customers so they ask for better quality/higher efficiency equipment and dealers stock it Provide trade ally training
Low trade ally awareness	Ongoing trade ally support

Incentives

The program offers the following types of financial incentives to participants.

- **Rebates** – Rebates are offered for comprehensive, whole-house energy efficiency upgrades. Incentives are paid on a per-home basis after verification by MidAmerican that the home complies with program requirements. Incentives vary based on whether MidAmerican provides utility service for the heating system, cooling system or both systems. The ABOP incentive is slightly lower than the HERS path because energy savings from ABOP homes are expected to be slightly less than those in ENERGY STAR homes based on previous experience with the two program options.

MidAmerican performs an annual review of incentive levels and eligibility requirements and may adjust these in the future as market conditions change.

MidAmerican will consider or jointly participate in market research planned by IPL to guide possible incentives for even more efficient home designations.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential builders using traditional marketing channels and provide education and outreach to customers, trade allies and industry organizations to encourage builder participation and implementation of energy efficient measures and equipment.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

This program targets building contractors, developers and future owners of residential homes. The program has been designed to accommodate different building types, including single-family homes, townhomes, multifamily apartment buildings and manufactured homes, as well as different development approaches including production developers, custom builders and speculative developers. Multifamily buildings must be three stories or less, and have all units in the building enroll in program to be eligible. Mixed-use and centrally metered buildings will be referred to the Commercial New Construction program. The program also uses tariff rates (those used by residential customers) to target and qualify participants.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Comprehensive Homes	Gas Comprehensive Homes
Customer Class	Residential electric rates	Residential natural gas rates
Customer Status	Homeowners and developers	Homeowners and developers
Building Type	Single-family homes (conventional and custom) Townhomes (slab on grade construction) Manufactured homes Low –rise multi-family buildings	Single-family homes (conventional and custom) Townhomes (slab on grade construction) Manufactured homes Low-rise multi-family buildings
Building Vintage	New construction	New construction
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory

Trade Ally Targets

Any building contractor that builds qualifying homes within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Home builders
- Home energy raters
- Real estate developers

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

The program will be promoted on the energy efficiency website, which features a dedicated Web page that includes program information and qualification requirements and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills.

MidAmerican call center associates will recommend the program to likely participants and, when appropriate, transfer customers to the program call center operated by the program contractor.

Program referrals are also expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program

information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential Behavioral Program

Description of Program

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

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 will help customers understand that decisions they make regarding energy usage are important and relevant to their total monthly energy usage.

Measure List

The Residential Behavioral program provides rebates and incentives for the following measures:

- Personalized Home Energy Reports delivered by direct mail and provided free of charge. Customers have the option to choose email delivery in addition to or instead of direct mail.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential Behavioral program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 203,350	$ 1,374,211	$ 1,577,561
2015	$ 149,400	$ 1,407,936	$ 1,557,336
2016	$ 149,400	$ 1,426,004	$ 1,575,404
2017	$ 149,400	$ 1,428,836	$ 1,578,236
2018	$ 149,400	$ 1,424,592	$ 1,573,992
Total	$ 800,950	$ 7,061,578	$ 7,862,528

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 41,650	$ 325,789	$ 367,439
2015	$ 30,600	$ 292,064	$ 322,664
2016	$ 30,600	$ 273,996	$ 304,596
2017	$ 30,600	$ 271,164	$ 301,764
2018	$ 30,600	$ 275,408	$ 306,008
Total	$ 164,050	$ 1,438,422	$ 1,602,472

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 245,000	$ 1,700,000	$ 1,945,000
2015	$ 180,000	$ 1,700,000	$ 1,880,000
2016	$ 180,000	$ 1,700,000	$ 1,880,000
2017	$ 180,000	$ 1,700,000	$ 1,880,000
2018	$ 180,000	$ 1,700,000	$ 1,880,000
Total	$ 965,000	$ 8,500,000	$ 9,465,000

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential Behavioral program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	34,680,000	11,422
2015	45,390,000	14,950
2016	46,920,000	15,454
2017	45,390,000	14,950
2018	44,200,000	14,558

Gas Savings	Annual Therms	Peak Therms
2014	1,037,000	13,486
2015	1,224,000	15,917
2016	1,190,000	15,475
2017	1,156,000	15,033
2018	1,122,000	14,591

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 17,551,336	$ 3,461,914	$ 21,013,251
Program Costs	$ 7,502,203	$ 1,532,379	$ 9,034,582
Net Economic Benefits	$ 10,049,134	$ 1,929,535	$ 11,978,669
Societal Test Ratio	2.34	2.26	2.33

Operations

Description of Operations

The program delivers targeted messages via the Home Energy Report to each participating customer. The reports include normative messaging that compares each household's energy usage to 100 similarly situated homes and the reports include energy efficiency tips that recommend simple steps each customer can take to reduce their energy usage. Messages are constantly updated and refreshed to motivate customers to take action. Customers are ranked in performance against the 100 similarly situated homes and the desire to improve in rank provides additional behavioral motivation to take action and save energy.

MidAmerican and its program contractor engage in the following steps to implement the program.

- **Provide data** – MidAmerican supplies the program contractor with weekly data feeds for all Iowa residential customers to ensure energy usage information shown on the home energy report matches energy usage information shown on the customer bill.
- **Establish groups** – The program contractor utilizes test and control groups to divide the targeted population into two statistically equivalent groups.
- **Validate data** – The program contractor verifies there is no historical difference in usage between test and control groups.
- **Mail paper reports** – The program contractor mails paper reports to the test or participant group only. No action is taken with the control group.
- **Determine energy savings** – The program contractor compares average energy use pre- and post-reports for both groups and reports realized energy savings to MidAmerican.
- **Manage operations** – MidAmerican's call center manages the day-to-day operations of answering participant's questions by phone and email. The call center also is able to update individual profiles with the participant on the phone by accessing the Customer Service Representative Web Portal. For example, the call center can update the square footage of the participant's home and view the customer's Home Energy Report so they can answer questions while looking at the exact same report the participant has at home.
- **Customer Web Portal** – Participants also may make updates to their profile online using the Customer Web Portal. The Customer Web Portal is available free of charge to customers that receive the Home Energy Report. It also allows customers to explore additional opportunities to save energy and money.

Customers in the test or participant group receive approximately six Home Energy Reports per year. In order to increase realized energy savings, only combination service customers (customers that receive both natural gas and electricity) are eligible for the program at this time. The program

is currently being run as a pilot with 50,000 participants receiving Home Energy Reports. MidAmerican proposes to make the program permanent with a total of 170,000 participants in this energy efficiency plan filing.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, gathering of appropriate customer data and MidAmerican call center and website support.

One contractor supports the program. The contractor provides the design and content for the Home Energy Reports and mails the reports to customers. The contractor also provides estimates of customer savings.

MidAmerican contracts with Opower, Inc. to implement the program. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers selected to participate in this program may receive the following main benefits,

- Financial benefits in the form of reduced utility bills due to following the recommendations presented in the Home Energy Reports.
- Information regarding energy savings tips and other energy efficiency programs of interest.
- Access to additional energy saving tips and tools through the Customer Web Portal.
- Heightened awareness of the relationship between energy usage decisions made in the home and the amount of energy used and the cost of this energy on monthly utility bills.

Market Barriers

The table below presents the key market barriers to a successful residential behavioral program and the strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Participant mistrust of the Home Energy Report and MidAmerican's motives for sending them the reports.	Participant education and outreach Train Call Center Representatives to answer frequently asked questions and reassure participants Include "Welcome Insert" with first Home Energy Report to explain the program and provide instructions to the customer on how to access the Customer Web Portal for more energy saving tips and information Revise language in the Home Energy Reports when appropriate to help minimize complaints and misunderstandings
Concern that homes are not being compared to comparable homes	Encourage participants to update their profiles in the Customer Web Portal to ensure their home is accurately and appropriately compared MidAmerican is investigating the opportunity for customers to update their home's profile by filling out a tear off postage-paid card that is included with the "Welcome Insert"
Concern that reports waste money on postage and natural resources	Educate customers that they may choose email reports and reassure them that the energy saved by the reports makes the expenditures of the program worthwhile

Incentives

The program offers the following types of incentives to participants:

- **Home Energy Reports** – The Home Energy Reports are provided at no charge.
- **Customer Web Portal** – The Customer Web Portal is available free of charge to customers that receive the Home Energy Report.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

Because the Residential Behavioral program is "opt out" as opposed to "opt in", the 170,000 customers chosen to participate in the program will not require a marketing plan to secure participation. However, a Welcome Insert is sent to each participant with their first Home Energy Report.

The Welcome Insert explains the program and how to access the Customer Web Portal for more information. MidAmerican is investigating the possibility of including a tear-off postage-paid post card with the Welcome Insert which the customer could use to update information about their home without accessing the Customer Web Portal. By providing customers the opportunity to update their home's profile upfront, customer concerns about the home energy reports may be lessened.

Customer Targets

Customer targets include Iowa residential customers that receive both electric and natural gas service from MidAmerican. Customers that receive only electric service from MidAmerican or only natural gas service from MidAmerican are not eligible to receive Home Energy Reports.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Report	Natural Gas Report
Customer Class	Residential electric rate and also receives natural gas service	Residential natural gas rate and also receives electric service
Customer Status	No restrictions	No restrictions
Building Type	No restrictions	No restrictions
Building Vintage	No restrictions	No restrictions
Geography	MidAmerican Iowa combination service territory	MidAmerican Iowa combination service territory

Trade Ally Targets

Trade allies are not utilized to deliver the Residential Behavioral program. However, MidAmerican is investigating the possibility of including coupons with the Home Energy Reports for energy saving products or measures. Should such a coupon prove viable, participating retailers that honor the coupons would be viewed as trade allies and MidAmerican would work with them to set up procedures.

Promotion

MidAmerican will promote and educate the general public about the program on its website and through appropriate press releases and other media contacts.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential Load Management Program

Description of Program

The Residential Load Management 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 the possibility of a system peak demand or when operational conditions require use of the program. The program is promoted under the service mark SummerSaver℠. The program reduces the peak demand for electricity by cycling participants' air conditioners or air-source heat pumps during the course of an event.

Residential electric customers who live in owner-occupied, single-family homes and have central air-conditioning are eligible for the program. Additionally the customers must live in a town serviced by the program and their air-conditioner must be in good working order with demonstrated usage. Certain models of central air conditioners, however, are not compatible with the technology of the program, and cannot participate. Additionally, Customers with geothermal heat pumps are not eligible for the program.

During the years 2009-2013, MidAmerican replaced over 25,000 aged load control receivers (LCRs). This pace of 5,000 replacements per year represents replacement of approximately 40% of MidAmerican's installed fleet of load control receivers in five years. MidAmerican intends to replace LCRs with new units when they reach the end of their useful life of approximately 15 years. For the years 2014-2018, MidAmerican proposes a replacement rate of 1,500 per year, which will keep MidAmerican on schedule for replacing aged LCRs when they have been in-service for approximately 15 years.

Measure List

The Residential Load Management program provides rebates and incentives for the following measures:

- Load Control Receiver installed for central air conditioner or air-source heat pump cycling.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential Load Management program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,006,020	$ 1,938,845	$ 2,944,865
2015	$ 1,032,004	$ 1,947,896	$ 2,979,900
2016	$ 1,058,943	$ 1,956,947	$ 3,015,890
2017	$ 1,086,292	$ 1,965,998	$ 3,052,290
2018	$ 1,114,646	$ 1,975,049	$ 3,089,695
Total	$ 5,297,905	$ 9,784,734	$ 15,082,639

There are no gas costs associated with this program.

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential Load Management program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	365,020	53,700
2015	358,976	52,811
2016	352,860	51,911
2017	346,672	51,001
2018	341,067	50,177

There are no gas savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 44,563,112	$ -	$ 44,563,112
Program Costs	$ 5,049,176	$ -	$ 5,049,176
Net Economic Benefits	$ 39,513,936	$ -	$ 39,513,936
Societal Test Ratio	8.83	-	8.83

Operations

Description of Operations

Participants agree to allow MidAmerican to control their cooling equipment during the four summer months (June to September). MidAmerican installs an LCR on participants' houses near their outside disconnect switches and air-conditioning compressors. An outside disconnect switch for the central air conditioner is required for program participation. If the customer's home does not already have one, MidAmerican installs one for no charge to facilitate program participation.

LCRs operate by overriding customers' thermostats, shutting down the outdoor compressor, but allowing the indoor furnace fan to continue circulating previously cooled indoor air. MidAmerican activates the LCRs through a pager network and through Frequency Modulation (FM) subcarrier signals. MidAmerican currently leases FM subcarrier signal from six regional FM radio stations. As MidAmerican continues to replace aged load control receivers, the need for FM subcarrier signal diminishes as all newly manufactured LCRs operate on pager signal. Therefore, MidAmerican anticipates terminating some FM subcarrier signal lease agreements during the years 2014-2018. To date, one FM radio station (Council Bluffs region) has been removed from service due to FM signal LCR replacements.

MidAmerican's cycling periods run from 2 to 7 p.m., with randomized programming to minimize impacts on local distribution systems. Actual start time can vary between 2 and 2:30 p.m., with corresponding end times between 7 and 7:30 p.m. Cycling events may be called by MidAmerican or the Midwest Independent Transmission Operator (MISO).

Key steps in the program include:

- **Solicit participants** – Soliciting new program participants through direct mailings to targeted customers.
- **Enroll participants** – Enrolling new participants.
- **Install LCRs** – Coordinating installation of LCRs.
- **Manage events** – Managing cycling events during the summer season.
- **Maintain LCRs** – Servicing and maintaining installed LCRs.
- **Process incentives** – Processing incentive bill credits through the billing system.
- **Manage participant leaving program** – Processing customers leaving the program, including removing LCRs (if necessary) and paying partial credits via check.
- **Recruit movers** – Contact current participants that move into new homes and also customers moving into homes of previous participants.

Description of Outside Services

The program is delivered by energy-efficiency staff and an administrative program contractor. Energy-efficiency staff sets incentive levels, develops marketing materials and coordinates communication among the internal and external staff involved in the program.

MidAmerican's program contractor manages customer enrollment and mailings; answers customer questions using a dedicated toll-free phone line, tracks program data, operates program software and hardware systems, and helps coordinate incentives with MidAmerican's billing and accounts

payable departments. The program contractor also maintains a network of electrical contractors responsible for installing and removing LCRs on customers' homes.

MidAmerican contracts with A-TEC Energy Corporation for administrative services. MidAmerican procures statewide 900 MHz statewide simulcast paging service from Electronic Engineering, Inc. MidAmerican leases regional FM subcarrier signal from Carroll Broadcasting Company, Inc. (Carroll), Clear Channel Communication, Inc. (Des Moines, Sioux City and Quad Cities), Coloff Media, LLC (Charles City) and Cumulus Broadcasting LLC (Waterloo). Cannon Technologies Inc., a division of Eaton Corporation, PLC provides LCRs and software systems and software system support.

Value Proposition

Customers participating in this program receive the following main benefits:

- Financial benefits in the form of annual incentive payments that reward them for participation.
- Enabling technologies, which are provided and installed by MidAmerican at no cost.
- Information in a variety of forms, including program brochures, website program information and enrollment materials.
- Information regarding all other residential energy efficiency programs available to MidAmerican customers.

Market Barriers

The table below presents the key market barriers to an effective residential load management program and the strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Lack of customer awareness	Consumer education and outreach Program promotion/advertising Promotion through other residential programs Dealer and service provider outreach sales training
Negative opinion of program expressed by heating/cooling contractors to customers	Ongoing dealer communications, outreach and education including promotion of HVAC Dealer Information Sheet
Concern that participation will result in homes being too hot during cycling events	Customer education and outreach
Program enrollment approaching saturation level	Focus greater program efforts on maintenance and replacement of oldest LCRs

Incentives

The program offers the following types of financial incentives to participants.

- **Bill credits** – Rebates are offered as a credit on customers' October or November utility bills at the completion of the cooling season. MidAmerican pays first-year participants a $40 end-of-season bill credit and recurring participants a $30 bill credit. Participants leaving the program prior to Sept. 30 receive checks for pro-rated incentives.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican solicits new participants in this program through annual mailings to targeted customers.

Additionally, trade allies providing HVAC maintenance services and those selling HVAC equipment also can influence customers' decisions to participate in the program.

Customer Targets

Any Iowa residential electric customer located in a town or area currently serviced by the program that lives in an owner-occupied, single-family home and has central air-conditioning or an air-source heat pump with demonstrated usage in good working condition is eligible for the program. Certain models of central air conditioners are not compatible with the LCR technology and therefore cannot participate. Also, customers with geothermal heat pumps are not eligible for the program.

MidAmerican targets the following customers:

- Residential customers with significant summer electricity usage.
- Customers moving into homes previously enrolled in the program.
- Customers previously enrolled in the program moving to new homes in MidAmerican's service territory.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Customers
Customer Class	Residential rates
Customer Status	Homeowners
Building Type	Single-family; Owner-occupied
Building Vintage	All
Geography	Iowa towns and areas serviced by the program
Size	All
Other	Must have central air conditioning or air-source heat pump

Trade Ally Targets

MidAmerican's program contractor maintains a network of heating and cooling and electrical subcontractors responsible for installing, maintaining and removing LCRs. Trade allies providing air conditioner maintenance and selling air conditioning equipment also can influence customers' decisions to participate in the program. However, the program relies primarily on MidAmerican staff, program contractors and subcontractors for program delivery.

To support trade allies and keep them informed of program operations and changes, MidAmerican maintains an active trade ally program. An HVAC dealer information sheet is prepared annually to educate HVAC dealers on the operation of the program. This sheet is provided at MidAmerican's annual trade ally meetings and also is included with each email notification of a cycling event which is sent to all HVAC dealers in MidAmerican's database.

Promotion

This program relies primarily on direct mailings to recruit and retain program participants. Mailings explain the program features and benefits and provide customers with simple actions to take to enroll in the program. MidAmerican sends a targeted mailing to eligible customers with summer electric usage high enough to indicate the presence of central air conditioning. A reminder post card is sent to customers a couple of months after they have received a solicitation brochure, reminding them it is not too late to sign up for the upcoming season. Additionally, MidAmerican promotes the program through brochures, articles in customer newsletters, a dedicated Web page on the Company's website and through MidAmerican's general awareness advertising.

Once the program has recruited its initial participants, additional mailings are sent to maintain and increase participation levels.

MidAmerican will continue to cross-market other energy efficiency programs through outreach and education efforts with customers participating in this program.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Residential HVAC Tune Up Program

Description of Program

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. The program is marketed under the name Residential HVAC Tune Up program.

The program is available to all residential customers and landlords for existing buildings in MidAmerican's Iowa service area. Program measures must save energy supplied directly by MidAmerican.

Measure List

The Residential HVAC Tune Up program provides rebates and incentives for the following measures:

- Heating and cooling tune ups
- Ductwork improvements

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Residential HVAC Tune Up program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 210,000	$ 351,117	$ 561,117
2015	$ 227,500	$ 468,551	$ 696,051
2016	$ 245,000	$ 702,878	$ 947,878
2017	$ 265,000	$ 823,004	$ 1,088,004
2018	$ 285,000	$ 938,761	$ 1,223,761
Total	$ 1,232,500	$ 3,284,311	$ 4,516,811

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 210,000	$ 302,133	$ 512,133
2015	$ 227,500	$ 402,449	$ 629,949
2016	$ 245,000	$ 603,622	$ 848,622
2017	$ 265,000	$ 703,996	$ 968,996
2018	$ 285,000	$ 805,989	$ 1,090,989
Total	$ 1,232,500	$ 2,818,189	$ 4,050,689

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 420,000	$ 653,250	$ 1,073,250
2015	$ 455,000	$ 871,000	$ 1,326,000
2016	$ 490,000	$ 1,306,500	$ 1,796,500
2017	$ 530,000	$ 1,527,000	$ 2,057,000
2018	$ 570,000	$ 1,744,750	$ 2,314,750
Total	$ 2,465,000	$ 6,102,500	$ 8,567,500

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Residential HVAC Tune Up program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	485,921	454
2015	647,894	605
2016	971,841	908
2017	1,144,293	1,062
2018	1,306,267	1,213
Total	4,556,217	4,243

Gas Savings	Annual Therms	Peak Therms
2014	58,832	765
2015	78,442	1,020
2016	117,663	1,530
2017	137,274	1,785
2018	156,884	2,040
Total	549,094	7,141

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 6,549,232	$ 3,014,469	$ 9,563,701
Program Costs	$ 4,991,391	$ 4,305,383	$ 9,296,774
Net Economic Benefits	$ 1,557,841	$ (1,290,914)	$ 266,927
Societal Test Ratio	1.31	0.70	1.03

Operations

Description of Operations

The program is delivered in partnership with heating and cooling dealers. One program contractor supports the program.

Key steps in program participation include:

- **Scheduled regular maintenance or equipment replacement** – The customer contacts a participating HVAC dealer for an equipment tune up or to perform a quality installation of a new piece of equipment through the Residential Equipment program.
- **Maintenance upgrade qualification** – The HVAC contractor determines whether the existing equipment is eligible for an incentive when performing an equipment tune up. The participating contractors need to meet training requirements and follow defined tune up protocols.
- **Ductwork upgrade qualification** – The HVAC contractor determines whether the existing ductwork is eligible for an incentive when performing an equipment tune up or during quality installation of new equipment. The participating contractors need to meet training requirements and follow defined ductwork upgrade protocols.
- **Program application** – The HVAC contractor completes an application to identify the type of tune up completed and the completed upgrades along with the associated costs. The customer mails the completed application to the program contractor.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – Where appropriate, the program contractor verifies that equipment upgrades meets program guidelines.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, and conducts research and development, promotion, trade ally support, evaluation and other administrative functions.

One contractor handles processing applications, tracking program data, answering questions from dealers and customers, verifying system improvements and coordinating rebate distribution to customers.

MidAmerican currently contracts with A-TEC Energy Corporation for management and administrative services for System Adjustment and Verified Efficiency (SAVE) and will continue to use A-TEC to launch this new program. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits.

- Customers save money in the short term through rebates and in the long term through lower utility bills, all the while improving the overall comfort of their homes.
- Customers receive reliable advice about possible system upgrades from a trustworthy source and improve the comfort of their home.
- The process is simple and straightforward. Tune up rebates are accessible to any qualifying customer for qualifying system performance improvement.

Market Barriers

The table below presents the key market barriers to a successful residential HVAC tune up program and strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Time required to fill out rebate forms	Provide simple rebate forms through software used by contractors Allow trade allies to fill in rebate forms for customers at the time of equipment or ductwork upgrade
Customers don't understand the long-term value of heating and cooling system upgrades	Train trade allies to explain life-cycle costs to customers Market program and general efficiency awareness to customers Provide efficiency education to customers
Trade allies not up-selling system upgrades	Provide trade ally training and outreach to explain the benefits of selling duct system upgrades when installing new equipment Market program and general efficiency awareness to trade allies
Dealers are unaware of program	Provide outreach and marketing to dealers

Incentives

The program offers the following types of financial incentives to participants.

- **Rebates** – Rebates are offered on a per-tune up or ductwork improvement basis to customers improving the performance of installed equipment. For equipment upgrades, the rebate will be a fixed amount while, for ductwork, the rebate will be a percentage of costs up to a cap.
- **Financing** – Subsidized financing is available as an alternative to rebates for selected measures.

MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential customers using traditional marketing channels and provide education and outreach to customers, trade allies and industry organizations to encourage customer and contractor participation.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

The target market for this program includes residential customers in existing housing. The program also uses tariff rates (those used by residential customers) to target and qualify customers.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Residential electric rate	Residential natural gas rate
Customer Status	Customer homeowners	Customer homeowners
Building Type	Single-family; Multi-family; Mobile home	Single-family; Multi-family; Mobile home
Building Vintage	Existing and new construction	Existing and new construction
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory

Trade Ally Targets

Any contractor that meets System Adjustment and Verified Efficiency (SAVE) training requirements within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- SAVE certified HVAC dealers and contractors
- Home Energy Raters

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will promote the program through inserts with customer bills. The inserts will reference the energy efficiency website, which features a dedicated Web page that includes program information, qualification requirements and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills. MidAmerican will promote the program through its Residential Assessment program by providing a coupon for a tune up from a qualified HVAC contractor.

MidAmerican call center associates will recommend the program to likely participants and, when appropriate, transfer customers to the program call center operated by the program contractor.

Program referrals are primarily expected from trade allies during the course of their existing HVAC maintenance programs. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Nonresidential Equipment Program

Description of Program

The Nonresidential Equipment program promotes the purchase of energy-efficient equipment by nonresidential customers. The program offers financial incentives to customers installing energy-efficient equipment, either for first-time or retrofit installations. The program also includes a "custom track" to allow customers to implement new technologies and alternate strategies not currently eligible for prescriptive rebates such as waste heat recovery or bottoming cycle combine heat and power (CHP) technologies.

The program is available to all nonresidential customers for both new and existing buildings. Program measures must save energy supplied directly by MidAmerican.

Transportation gas customers with daily metering are ineligible for incentives for gas measures; however, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Measure List

The Nonresidential Equipment program provides rebates and incentives for the following measures:

- Efficient motors
- Variable speed drives
- Heating and cooling equipment including:
    - Central and packaged terminal air conditioners
    - Air-source and ground-source heat pumps
    - Chillers
    - Natural gas furnaces
    - Efficient furnace fans
    - Natural gas boilers
    - Gas and electric water heaters
    - Programmable thermostats
    - Desuperheaters
- Commercial kitchen equipment including:
    - Ice makers
    - Freezers
    - Refrigerators
    - Gas convection and conveyor ovens
    - Steam cookers
    - Gas broilers
    - Refrigerated vending machine controllers
    - Electronically commutated motors for refrigerated display cases and walk-in coolers
- Lighting equipment including:

  - T-8 fluorescent lighting system retrofits
  - Reduced wattage T-8 lamps
  - T-5 & T-8 high bay fixtures
  - Occupancy sensors
  - Compact fluorescent lamps
  - Pulse-start metal halide fixtures
  - Reduced wattage metal halide replacement lamps
  - LED lamps
  - LED fixtures
  - LED traffic signal lamps
  - LED exit signs
  - Lighting timers
- Building shell measures including:
  - Attic/roof/ceiling insulation
  - Wall insulation
  - Infiltration measures (weather stripping, caulking, foam backer rods, etc.)
  - Efficient doors and windows

Any cost-effective energy efficiency measure not listed as a prescriptive measure above is potentially eligible for an incentive in the custom track of this program. Types of projects that may qualify under the custom track are lighting redesign, energy management systems, and heat recovery systems including bottoming cycling CHP projects.

MidAmerican will provide detailed information related to combined CHP qualification on its website at midamericanenergy.com/ee as well as in customer newsletters and brochures. MidAmerican's Key Account Managers will further promote the specifics of CHP eligibility to interested customers during annual joint planning and other customer meetings.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Nonresidential Equipment program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 721,301	$ 6,356,547	$ 7,077,848
2015	$ 739,334	$ 6,454,576	$ 7,193,910
2016	$ 757,817	$ 6,526,093	$ 7,283,910
2017	$ 776,762	$ 6,597,235	$ 7,373,997
2018	$ 796,181	$ 6,663,581	$ 7,459,762
Total	$ 3,791,395	$ 32,598,032	$ 36,389,427

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 127,288	$ 1,992,263	$ 2,119,551
2015	$ 130,470	$ 2,030,182	$ 2,160,652
2016	$ 133,732	$ 2,070,038	$ 2,203,770
2017	$ 137,075	$ 2,109,992	$ 2,247,067

2018	$ 140,502	$ 2,153,213	$ 2,293,715
Total	$ 669,067	$ 10,355,688	$ 11,024,755

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 848,589	$ 8,348,809	$ 9,197,398
2015	$ 869,804	$ 8,484,758	$ 9,354,562
2016	$ 891,549	$ 8,596,131	$ 9,487,680
2017	$ 913,837	$ 8,707,227	$ 9,621,064
2018	$ 936,683	$ 8,816,794	$ 9,753,477
Total	$ 4,460,462	$ 42,953,719	$ 47,414,181

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Nonresidential Equipment program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	59,673,372	9,231
2015	60,168,385	9,298
2016	57,457,882	8,885
2017	57,617,897	8,907
2018	57,745,832	8,920
Total	292,663,368	45,241

Gas Savings	Annual Therms	Peak Therms
2014	824,801	11,496
2015	839,622	11,635
2016	854,281	11,772
2017	869,101	11,912
2018	883,444	12,044
Total	4,271,250	58,860

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 261,373,098	$ 54,156,842	$ 315,529,941
Program Costs	$ 62,668,446	$ 17,972,152	$ 80,640,599
Net Economic Benefits	$ 198,704,652	$ 36,184,690	$ 234,889,342
Societal Test Ratio	4.17	3.01	3.91

Operations

Description of Operations

The program is delivered in partnership with motor and variable speed drive distributors, heating and cooling distributors and contractors, commercial kitchen equipment distributors and lighting distributors and contractors.

Key steps in program participation include:

- **Program application** – The customer identifies a project and fills out an application to define equipment for project evaluation. Trade allies and/or a key account manager may assist a customer with this step.
- **Project identification** – The application is reviewed to determine if the project is prescriptive in nature or will require a custom review.
- **Project qualification** – The program contractor determines if the project meets the minimum efficiency requirement of the measure.
- **Technical assistance** – When necessary, the program contractor helps a customer identify the technical information necessary to determine project eligibility.
- **Project evaluation** – For custom projects, the program contractor determines project incremental cost and potential energy and capacity savings data.
- **Cost effectiveness analysis and rebate calculation** – For custom projects, MidAmerican evaluates cost-effectiveness and determines if the project meets program guidelines and qualifies for financial incentives. Custom rebates are set at 25 percent of incremental cost or an amount that buys down the project to 25 percent of its useful life, whichever is greater. Custom project rebates will be capped at a two year simple payback and cannot exceed 60 percent of the eligible project cost.
- **Approval/denial notification** – For custom projects, MidAmerican either sends out a project approval letter and self-verification form or a denial letter.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – For custom projects, the customer submits a self-verification form. Where appropriate, the program contractor field verifies that a project installation meets program guidelines. The program contractor field verifies a percentage of all prescriptive projects.

Description of Outside Services

MidAmerican uses two program contractors to support the program. One program contractor is responsible for handling customer calls, reviewing project applications, tracking results and processing customer rebates. Additionally, this program contractor reviews the initial application and determines if the project is covered by the applicable prescriptive equipment program or if the project requires a custom review.

If the project requires a custom review, the second program contractor works directly with customers to help identify the technical information necessary for project evaluation, performs technical analyses of applications to confirm scope, cost and potential energy savings, performs field verification on completed projects and calculates revised expected annual energy savings from installed projects, if appropriate.

MidAmerican staff provides overall strategic direction for the program, calculates cost-effectiveness, payback periods and rebates, conducts research and development and provide promotion, evaluation, and other administrative functions. MidAmerican currently contracts with A-TEC Energy Corporation and The Energy Group for administrative and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive these benefits.

- Customers save money in the short term through rebates and in the long term through lower energy bills.
- Customers receive reliable advice about high quality energy-efficient equipment from a trustworthy source.
- The process is simple and straightforward. Equipment rebates are accessible to any qualifying customer for any qualifying equipment. Projects not listed in the lists of prescriptive equipment can be given a custom review which acts as a catch-all for new technology equipment and for large or unique measures.

Market Barriers

The table below presents the key market barriers to a successful nonresidential equipment program and strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Higher first cost of energy-efficient equipment	Offer rebates Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Time required to fill out rebate forms	Provide simple rebate forms through a variety of media (mail-in, online) Allow trade allies to fill in rebate forms for the customers at the time of equipment purchase Offer point-of-sale rebates for lighting measures at participating retailers and electrical distributors
Customers do not bother to look for qualifying measures	Trade ally training to help customers quickly identify appropriate measures and products Provide in-store brochures and collateral Market program and general efficiency awareness to customers Provide efficiency education to customers
Trade allies not up-selling to high-efficiency equipment	Provide trade ally training and outreach to explain the benefits of selling higher efficiency equipment Market program and general efficiency awareness to trade allies
Lack of availability of qualifying equipment	Promote programs to customers so they ask for qualifying equipment and dealers stock it Provide trade ally training Upstream retail lighting buy-down assures participating retailers and lighting distributors stock the qualified equipment
Customers do not understand the long-term value of high-efficiency equipment	Train trade allies to explain life-cycle costs to customers Market program and general efficiency awareness to customers Provide energy efficiency education to customers
Dealers are unaware of the program	Provide outreach and marketing to dealers

Incentives

The program offers the following types of financial incentives to participants.

- **Rebates** – Rebates are offered on a per-measure basis to program participants installing qualifying equipment. For some equipment the rebate will be a fixed amount per measure while, for other equipment, the rebate will increase with increasing equipment efficiency. For measures not listed on qualifying equipment lists, a review of measure cost, useful life and energy saving details will take place to determine the rebate. Custom rebates are set at 25 percent of incremental cost or an amount that buys down the project to 25 percent of its useful life, whichever is greater. Custom project rebates will be capped at a two year simple payback and cannot exceed 60 percent of the eligible project cost.

MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target nonresidential customers using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and industry organizations, to encourage customer participation and implementation of energy efficient measures and equipment.

Key account managers will promote the program to mid-size and large commercial and industrial customers during routine contacts. Additionally, key account managers generally provide printed program brochures to their assigned accounts during the first quarter which allows the key account managers to review the program and answer any questions customers may have regarding the program. Key account managers will also provide printed materials that include the specifics of which CHP projects are eligible for rebates to these customers.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

The target market for this program includes commercial and industrial customers of all sizes for both new and existing facilities. Program measures must save energy supplied directly from MidAmerican Energy. Transportation gas customers with daily metering are ineligible for gas measures; however, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Nonresidential electric rates	Nonresidential natural gas rates Gas transportation customers with daily metering are ineligible
Customer Status	Building or business owners; property managers of customers	Building or business owners; property managers of customers
Building Type	All	All
Building Vintage	Existing and new construction	Existing and new construction
Geography	MidAmerican's Iowa electric service territory	MidAmerican's Iowa natural gas service territory

Trade Ally Targets

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- HVAC equipment distributors, dealers and service providers
- Plumbing and mechanical contractors
- Lighting distributors and dealers
- Electrical contractors
- Motor and variable speed drive distributors and dealers
- Boiler and water heater distributors and dealers
- Commercial kitchen equipment suppliers
- Engineering firms
- Architects

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the specific Education program.

Promotion

MidAmerican will engage in a multifaceted promotional strategy, including:

- Outreach and educational opportunities for trade allies, nonresidential industry associations and support organizations.
- Attendance, material distribution, and presentations at industry events.
- Participation in nonresidential industry associations and industry support organizations,

- Targeted advertisements in industry trade publications.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter that is sent with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website will appear periodically on customer bills and in the electronic newsletter.
- A direct marketing campaign by targeting specific nonresidential segments with industry-specific information through direct mail, phone calls or emails to encourage participation.

Program referrals are also expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Commercial Assessment Program

Description of Program

The Commercial Assessment program promotes comprehensive energy efficiency for existing commercial buildings, regardless of size. The program will offer services through two program tracks, tailored to the unique needs of commercial customers by size and intention. The two tracks include:

Track I – Assessments

- **Small Commercial Assessment** – targets smaller commercial buildings that generally use <500,000 kWh per year and are typically <25,000 square feet. Identified customer segments will receive an energy assessment, information regarding how their segment uses energy, installed low-cost energy efficiency measures, and recommendations for capital investment projects.
- **Large Commercial Assessment** – targets commercial buildings that generally use >500,000 kWh/year and generally require major system renovations or retrofits. Customers will receive an energy assessment and recommendations for capital investment projects.

Track II – Building Tune Up/Retrocommissioning

- **Building Tune Up** – offers a "find and fix" tune up method for small commercial buildings that are generally <100,000 square feet, have rooftop units, and are free of major problems requiring costly repairs or replacements. This service targets smaller buildings that can achieve superior results from simple retrocommissioning strategies and operator training without having to incur the expense and capital investments to replace or abandon systems. The goal of a building tune up is to find easy to fix items that will enhance building performance and reduce energy consumption. Examples of corrective measures might include scheduling programmable thermostats, adjusting/adding economizers, repairing failed actuators, and adjusting minimum outside air percentages.
- **Traditional Retrocommissioning** – offers traditional retrocommissioning strategies for large buildings that are generally >100,000 square feet, have central systems, an energy management system with direct digital control, and are free of major problems requiring costly repairs or replacements. This service targets larger, more complex commercial buildings that can achieve superior results from intensive retrocommissioning strategies and operator training without having to incur the expense and capital investments to replace or abandon systems. The goal of traditional retrocommissioning is to optimize existing building systems and reduce energy consumption. Examples of corrective measures might include optimizing economizer and ventilation controls, improving equipment sequencing and scheduling, and optimizing fans and pumps.

Data Centers – It is important to note that energy saving opportunities in existing stand-alone data centers and internal server rooms and server closets will be pursued and leveraged through the Commercial Assessment program. Localized data centers, server rooms, and server closets, in particular, can be difficult to reach through a separate program because the market is disaggregated. When a customer participates in Building Tune Up/Retrocommissioning, a facility's data center will be addressed. Many of the energy saving opportunities can be addressed by managing data center air flow and adjusting and improving the HVAC system. When applicable, a data center efficiency study will be recommended to explore and validate additional data center energy savings opportunities for the customer's unique data center environment.

The Commercial Assessment program is available to all commercial buildings that receive electricity and/or natural gas supplied directly from MidAmerican.

Transportation gas customers with daily metering are ineligible for gas measures. However, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Measure List

The Commercial Assessment program provides rebates and incentives for the following measures:

Direct Install Measures

Small commercial assessments include free low-cost measures that may be installed at the time of the assessment. At the time of the plan filing, the following measures are available for direct installation:

- Low-flow showerheads
- Faucet aerators
- Water pipe insulation
- Low-flow kitchen sprayers
- LED exit light kits
- Programmable thermostats
- Compact fluorescent bulbs
- Vending machine controls

Follow-Up Measures

Any prescriptive or cost effective custom energy efficiency measure is potentially eligible for rebate under the Commercial Assessment program. Typical measures include:

- T-8 and T-5 fluorescent lighting systems
- Daylighting and other lighting controls
- Efficient HVAC equipment and HVAC controls
- Building shell improvements
- Premium efficiency motors
- Variable-speed drives
- Efficient kitchen equipment

MidAmerican performs an annual review of qualifying measures and may adjust measures and eligibility requirements in the future as market conditions and equipment standards change.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the commercial assessment program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 280,422	$ 3,635,086	$ 3,915,508
2015	$ 328,850	$ 4,351,697	$ 4,680,547
2016	$ 470,917	$ 6,351,150	$ 6,822,067
2017	$ 605,784	$ 8,334,932	$ 8,940,716
2018	$ 719,206	$ 9,938,936	$ 10,658,142
Total	$ 2,405,179	$ 32,611,800	$ 35,016,979

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 249,023	$ 2,048,371	$ 2,297,394
2015	$ 261,454	$ 2,611,820	$ 2,873,274
2016	$ 276,951	$ 3,183,513	$ 3,460,464
2017	$ 300,360	$ 4,492,123	$ 4,792,483
2018	$ 318,901	$ 5,480,092	$ 5,798,993
Total	$ 1,406,689	$ 17,815,918	$ 19,222,607

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 529,445	$ 5,683,457	$ 6,212,902
2015	$ 590,304	$ 6,963,517	$ 7,553,821
2016	$ 747,868	$ 9,534,663	$ 10,282,531
2017	$ 906,144	$ 12,827,054	$ 13,733,198
2018	$ 1,038,107	$ 15,419,028	$ 16,457,135
Total	$ 3,811,868	$ 50,427,718	$ 54,239,586

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Commercial Assessment program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	7,616,443	1,533
2015	8,966,443	2,396
2016	10,636,483	4,577
2017	14,107,604	7,012
2018	17,037,604	9,023
Total	58,364,576	24,541

Gas Savings	Annual Therms	Peak Therms
2014	350,706	3,132
2015	416,706	4,212
2016	483,706	5,313
2017	636,706	7,814
2018	751,206	9,662
Total	2,639,030	30,133

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 62,838,828	$ 29,328,631	$ 92,167,458
Program Costs	$ 41,213,710	$ 20,774,763	$ 61,988,473
Net Economic Benefits	$ 21,625,118	$ 8,553,868	$ 30,178,985
Societal Test Ratio	1.52	1.41	1.49

Operations

Description of Operations

The program uses distinct processes for each of the tracks, which are detailed below.

Track I – Assessments

Small Commercial Assessments – The small commercial assessment is designed for smaller commercial buildings that have standard equipment. Assessments for identified customer segments will be tailored to meet the needs of that segment. Key steps include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **Screening** – To ensure placement in the appropriate track, a thorough screening will help identify the commercial building's characteristics as well as any customer plans to complete capital investment projects. For Track I, the customer segment also is identified, e.g. convenience store, office/retail, etc.
- **On-site assessment completion** – Based on the customer segment, the program contractor completes a building assessment, installs low-cost energy efficiency measures, informs customers of ways to operate building energy systems more efficiently, and identifies potential follow-up projects and determines eligibility for financial incentives.

- **Assessment report** – The program contractor provides the customer with an assessment report that includes recommendations for energy efficiency projects appropriate for their segment. Recommendations focus on the highest amount of potential energy savings for a customer segment at the lowest cost to the customer. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.
- **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican staff process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of measure installations.

Large Commercial Assessments – The large commercial assessment is designed for large commercial buildings interested in implementing a higher number of capital investment projects than other tracks. Key steps include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **Screening** – To ensure placement in the appropriate track, a thorough screening will help identify the commercial building's characteristics as well as any customer plans to complete capital investment projects.
- **On-site assessment completion** – The program contractor completes a building assessment that focuses on the identification of energy saving opportunities with the greatest potential, informs customers of ways to operate building energy systems more efficiently, and identifies potential follow-up projects including cost analysis and eligibility for financial incentives. Recommendations also may be made for potential capital-intensive improvements that require more thorough data collection and engineering analysis.
- **Assessment report** – The program contractor provides the business owner an assessment report that includes recommendations for energy efficiency capital investment projects. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.
- **Implementation support** – The program contractor may provide varying levels of implementation support depending on the customer need, project complexity and size of a project. This support may include answering assessment-report-related questions, assisting with the development of detailed requests for proposals, reviewing vendor bids, reviewing proposals on systems that require additional detailed study, assisting with applications for rebate, etc.
- **Data Center Optimization** – The customer is provided an option for detailed studies of capital intensive modifications, such as data center studies. A detailed study may be included as a recommendation in the assessment report. This type of analysis:
    - Focuses on specific capital-intensive improvements identified in the assessment.
    - Includes detailed field data gathering and more rigorous engineering analysis.
    - Provides detailed project cost and savings calculations sufficient for investment grade decisions.
- **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.

- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of measure installations.

Track II – Building Tune Up/Retrocommissioning

Building Tune Up – Building tune up focuses on achieving energy efficient buildings through simplified "find and fix" retrocommissioning strategies. "Find and fix" is designed for small buildings (generally <100,000 square feet with roof top units). Key steps include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **Screening** – To ensure placement in the appropriate track, a thorough screening will help identify the commercial building's characteristics as well as any customer plans to complete capital investment projects.
- **Site investigation and completion of measures** – The program contractor performs a simplified "find and fix" building tune up process to identify and implement a variety of tune up measures aimed at improving the operational efficiencies of existing mechanical systems. The process involves three key aspects:
    - Find opportunities – The program contractor reviews the building's controls and mechanical systems to identify the programs standard measures. An experienced energy engineer identifies opportunities, quantifies the impacts, and reports the findings to the facility representative.
    - Choose opportunities – The customer's staff representative, who is knowledgeable in the building operation, makes decisions regarding implementation of the identified measures and authorizes investment in a finite amount of additional labor and materials.
    - Fix opportunities – The customer selects a contractor capable of supporting the identification of tune up measures, manipulating system controls and set-points, and executing the implementation of identified measures.
- **Verification** – The program contractor conducts measurement and verification on a sample of projects to ensure the effectiveness and persistence of measures installed.
- **Rebate application** – Although the program is not designed to focus on follow-up measures, they may be recommended during the assessment. If a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes. The program contractor conducts verification on a sample of measure installations.

Traditional Retrocommissioning – Retrocommissioning is designed for large buildings (generally >100,000 square feet with central systems). Key steps include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **Screening** – To ensure placement in the appropriate track, a thorough screening will help identify the commercial building's characteristics as well as any customer plans to complete capital investment projects.
- **On-site assessment completion** – The commissioning agent completes an assessment of the facility's HVAC systems and quantifies the impacts of all findings.
- **Assessment report** – Retrocommissioning strategies will be outlined for investigation and implementation. Capital upgrades may be identified and outlined in the report. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.
- **Detailed study option** – The customer is provided an option for detailed studies of capital intensive modifications. A detailed study may be included as a recommendation in the assessment report. This type of analysis:
    - Focuses on specific capital-intensive improvements identified in assessment.
    - Includes detailed field data gathering and more rigorous engineering analysis.
    - Provides detailed project cost and savings calculations sufficient for investment grade decisions.
- **Retrocommissioning completion** – The commissioning agent performs comprehensive retrocommissioning to ensure the accuracy and success of the program for large buildings.
- **Verification** – The commissioning agent or program contractor conducts site-specific measurement and verification to quantify and verify the savings achieved.
- **Rebate application** – Follow-up measures may be recommended during the assessment. If a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes. The program contractor conducts verification on a sample of measure installations.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development, and provides promotion, trade ally support, evaluation, and other administrative functions.

The program is delivered through the assistance of a program contractor(s) that provides energy assessments, technical assistance, energy analysis, reporting, project management and verification services. The contractor(s) also helps MidAmerican strengthen relations with key trade allies. A fulfillment contractor assists with data tracking and rebate processing.

MidAmerican currently contracts with Franklin Energy LLC and Nexant, Inc. to complete the functions of current assessment programs. MidAmerican also currently contracts with A-TEC Energy Corporation for administrative and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

MidAmerican will incorporate provisions for third-party subcontracting and performance based criteria into its RFP process in its next contract.

Value Proposition

Customers participating in the program receive three main benefits.

Financial benefits including:

- A free whole-building energy assessment from trained auditors with direct installation (Track I only) and/or completion of energy-saving measures (Tracks I and II) when applicable.
- Rebates that reduce the payback of implemented energy efficiency measures.
- Increased property values due to lower monthly operating costs, investment in advanced efficiency technologies and improved building operation and comfort.

Decision support including:

- Assessments tailored to the unique needs of the commercial customer.
- Comprehensive information on the costs and benefits of energy efficiency strategies.
- Assistance with obtaining qualified trade allies to ensure successful project implementation.

Confidence in investment decisions due to:

- Company representative involvement in the process.
- Professional, independent estimation and verification of measure savings.

Market Barriers

The table below presents the key market barriers to an effective commercial assessment program, and strategies the program uses to address each barrier. Note these program strategies can only partially offset the barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
High cost of efficient retrofit measures and limited capital for building assessments and upgrades	Provide free on-site energy assessments Provide rebates to help offset the cost of efficient equipment
Lack of customer program and energy efficiency awareness	Provide direct customer outreach Conduct outreach to appropriate trade allies Complete general education and provide information about simple operational changes and initiatives that provide on-going savings Provide free, third-party expert analysis and recommendations
Limited time, resources and awareness on how to act on recommendations	Provide free independent assessment and recommendations Provide a trade ally network and referral program to help identify appropriate contractors Have direct contact with business decision-makers Provide a streamlined participation process and simple rebate forms Communicate with customers to help them move through installation steps Provide simple maintenance tips for ongoing savings
Customers don't trust energy-savings calculations	Provide free independent assessment and recommendations Develop and share case studies of actual projects with energy savings where appropriate
Energy small part of overall operating costs	Utilize targeted marketing materials and education efforts
Lack of trade ally awareness	Conduct ongoing trade ally support and education

Incentives

MidAmerican offers the following financial incentives to participants:

Track I – Assessments

- **No cost energy assessments** – No cost energy assessments are offered to assist participants in identifying how they use energy and what actions can be taken to reduce energy use.
- **Low-cost energy efficiency measures** – MidAmerican's program contractor installs low-cost energy efficiency measures during the assessment, at no cost to the customer.
- **Equipment incentives** – Prescriptive rebates, as outlined in the Nonresidential Equipment program, will apply to projects in the Commercial Assessment program. Custom rebates are set at 25 percent of incremental cost or an amount that buys down the project to 25 percent of its useful life, whichever is greater. Custom project rebates will be capped at a two year simple payback and cannot exceed 60 percent of the eligible project cost.
- **Enhanced incentives** – Enhanced incentives will be offered to encourage multiple projects.

Track II – Building Tune Up/Retrocommissioning

- **Building Tune Up measures** – MidAmerican will offer a 50/50 cost share between MidAmerican and customer on assessment and measure implementation costs. Incentives cannot exceed an established cap.
- **Retrocommissioning study** – MidAmerican will fund 100 percent of the retrocommissioning study. Incentives cannot exceed an established cap.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target existing commercial buildings using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and building community organizations, to encourage customer participation and implementation of energy efficient measures and equipment.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

The program targets existing commercial buildings of any size. Industrial (manufacturing) customers are to be served under the Nonresidential Energy Analysis program.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Nonresidential electric rates	Nonresidential natural gas rates Gas transportation customers with daily metering are ineligible
Customer Status	Customer building or business owners Landlords of customers	Customer building or business owners Landlords of customers
Building Type	Commercial buildings (i.e., non-manufacturing)	Commercial buildings (i.e., non-manufacturing)
Building Vintage	Existing buildings	Existing buildings
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory
Building Size	All	All

Trade Ally Targets

The program relies primarily on the following trade allies for program delivery:

- Lighting dealers and installers
- Insulation contractors
- HVAC contractors
- Mechanical, electrical and equipment contractors
- Detailed study providers (e.g., data center optimization)

Trade allies play a key role in supporting the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will engage in a multifaceted promotional strategy that will include:

- Direct outreach to commercial building owners.
- Ongoing trade ally education about program procedures and benefits, qualifying measures, and equipment and rebate structures.
- Promotional and educational activities, such as workshops and presentations for customers as well as other stakeholders in the community.
- Attendance and program promotion at conferences and trade shows.
- Advertisements and case studies in appropriate professional and trade journals and publications.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter that is sent with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website will appear periodically on customer bills and in the electronic newsletter.

Program referrals also are expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Industrial Partners Program

Description of Program

The Industrial Partners program promotes comprehensive efficiency strategies in existing industrial facilities through no-cost facility-wide or system-specific assessments as well as a comprehensive system optimization study option. Program participants work in partnership with MidAmerican through their key account managers and trade allies to identify and implement comprehensive energy efficiency measures.

The Industrial Partners program is available to all industrial (manufacturing) facilities that receive electricity and/or natural gas supplied directly from MidAmerican.

Transportation gas customers with daily metering are ineligible for gas incentives. However, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Measure List

Any prescriptive or cost effective custom energy efficiency measure is potentially eligible for the Industrial Partners program. Typical measures include:

- T-8 and T-5 fluorescent lighting systems
- LED lighting systems
- Lighting controls
- Efficient HVAC equipment and HVAC controls
- Building shell improvements
- Ultra-premium efficiency motors
- Variable-speed drives
- Waste heat recovery or bottoming cycle combined heat and power (CHP) technologies
- Optimized refrigeration systems
- Optimized compressed air systems
- Optimized process cooling systems
- Process controls, energy management systems and specialty process equipment specific to individual customers

MidAmerican performs an annual review of qualifying measures and may adjust measures and eligibility requirements in the future as market conditions and equipment standards change.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Industrial Partners program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 753,741	$ 7,753,094	$ 8,506,835
2015	$ 731,196	$ 7,535,804	$ 8,267,000
2016	$ 613,965	$ 5,991,620	$ 6,605,585
2017	$ 510,118	$ 4,926,453	$ 5,436,571
2018	$ 427,261	$ 4,094,940	$ 4,522,201
Total	$ 3,036,281	$ 30,301,911	$ 33,338,192

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 85,171	$ 1,709,224	$ 1,794,395
2015	$ 80,441	$ 1,584,390	$ 1,664,831
2016	$ 74,531	$ 1,329,112	$ 1,403,643
2017	$ 55,386	$ 873,533	$ 928,919
2018	$ 42,446	$ 631,110	$ 673,556
Total	$ 337,975	$ 6,127,370	$ 6,465,345

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 838,912	$ 9,462,319	$ 10,301,231
2015	$ 811,637	$ 9,120,194	$ 9,931,831
2016	$ 688,496	$ 7,320,733	$ 8,009,229
2017	$ 565,504	$ 5,799,986	$ 6,365,490
2018	$ 469,707	$ 4,726,050	$ 5,195,757
Total	$ 3,374,256	$ 36,429,281	$ 39,803,537

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Industrial Partners program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	23,090,199	3,036
2015	22,759,398	2,973
2016	19,063,775	2,473
2017	17,653,076	2,279
2018	15,867,278	2,037
Total	98,433,726	12,798

Gas Savings	Annual Therms	Peak Therms
2014	176,734	519
2015	171,405	504
2016	145,939	429
2017	102,457	302
2018	89,194	264
Total	685,728	2,017

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 87,995,326	$ 8,399,535	$ 96,394,861
Program Costs	$ 50,492,843	$ 8,141,032	$ 58,633,875
Net Economic Benefits	$ 37,502,483	$ 258,503	$ 37,760,986
Societal Test Ratio	1.74	1.03	1.64

Operations

Description of Operations

The program provides no-cost facility-wide or system-specific assessments, a comprehensive system optimization study option and rebates for custom or prescriptive projects. Customers are encouraged to pursue comprehensive energy savings opportunities and will work in coordination with their key account manager.

Key steps in program operation include:

- **Application** – The customer submits a program application form.
- **Screening** – Applications will be screened to determine customer level of interest, energy goals and eligibility. Once any requested information is received, and a determination is made that the program is appropriate for the customer, the customer will officially be enrolled in the program.
- **Facility assessment** – An assessment will be completed that includes a review of the industrial facility and operating equipment, systems and processes. Potential energy-saving opportunities that will reduce energy usage and cost will be identified.
- **Energy assessment report** – An assessment report will be provided to the customer. This report will summarize the recommended energy-saving opportunities and provide methods to better manage energy issues and usage. The results will provide the necessary details to make informed decisions about which of the recommended energy-saving opportunities will help an organization achieve its short- and long-term energy goals. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.

- **Implementation support** – As needed, customers may have the option of receiving dedicated energy management assistance to help convert committed projects to installed projects.
- **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of measure installations.
- **System Optimization Option** – Industrial Partners participants have the option of a comprehensive study to analyze a facility's compressed air, industrial refrigeration, and/or process cooling systems to identify cost-effective energy efficiency opportunities. The customer receives the benefit of a closed network of study providers to ensure quality analysis at a competitive price and can earn rebates towards the study cost when completion milestones are achieved. Providers are required to meet minimum program guidelines, including qualified staff, experience, compliance with reporting standards and attending mandatory training sessions. Key operational steps include:
    - **Application** – The customer submits a program application form.
    - **Quality Service Provider Selection –** Once the application is approved, the customer will select a qualified service provider.
    - **Investigation –**The qualified service provider will conduct an assessment of the industrial system to identify potential energy-saving opportunities.
    - **System Optimization Report –** The qualified service provider will provide a report with low cost and capital improvement recommendations and assist customers select projects that meet minimum participation requirements.
    - **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
    - **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
    - **Verification** – The program contractor conducts verification on measure installations.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development, and provides promotion, trade ally support, evaluation, and other administrative functions.

The program is delivered through the assistance of a program contractor(s) that provides energy assessments, technical assistance, energy analysis, reporting, project management and verification services. The contractor(s) also helps MidAmerican strengthen relations with key trade allies and assists with data tracking and rebate processing.

MidAmerican currently contracts with Nexant, Inc. for administrative and evaluation services for industrial customers. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

MidAmerican will incorporate performance based criteria to improve conversion rates in the next implementation contract for this program.

Value Proposition

Customers participating in the program receive three main benefits:

- Financial benefits in the form of free assessments, rebates that reduce the payback of implemented energy efficiency measures, energy savings for the lifetime of the installed measures, and potentially increased property values.
- Technical Assistance in the form of access to energy efficiency engineers to help identify and scope energy efficiency opportunities.
- Confidence in their investment decision due to senior management involvement in the process and independent estimation and verification of measure savings.

Market Barriers

The table below presents the key market barriers to an effective nonresidential assessment program and strategies the program uses to address each barrier. Note these program strategies can only partially offset the barriers.

Market Barriers and Strategies

Market Barriers to Energy-Efficient Buildings	Program Strategies
High cost of efficient equipment and competition for capital expenses	Provide rebates set at levels to help offset incremental costs and compete favorably with other investments
Time and resource constraints	Provide free technical consultation to help determine cost-effective options Provide a streamlined participation process Provide customers with assessments and reports to help them organize and take advantage of efficiency opportunities Provide a trade ally network and assistance with obtaining a qualified contractor Provide flexibility, high-level customer support and follow-through
Lack of confidence in savings estimates from vendors	Offer independent third-party estimation and verification of energy savings
Capital expense may not be in budget cycle (project timing)	Take a long-term approach and provide flexibility
Low customer awareness of program	Marketing and direct outreach to targeted customers Provide consumer education and outreach Program promotion/advertising Use of nontraditional marketing approaches
Low trade ally awareness	Ongoing trade ally communications and outreach Provide dealer sales training

Incentives

The incentive strategy is designed to offset the cost barrier associated with efficient equipment and systems, to promote comprehensive efficiency strategies and to encourage customers to follow through with implementation.

The following types of incentives are offered through this program:

- **Facility assessment** – An assessment will be completed at no cost to customers.
- **Technical assistance** – Technical assistance is provided throughout the project cycle at no cost to customers. Assistance includes facility-wide and system-specific engineering assessments project management support to help customers develop, manage, and implement energy efficiency action plans and verification of installed projects.
- **Implementation support** – Customers have the option of receiving additional technical assistance with project implementation which may include:
    - Providing customers with independent third-party representation during the bidding process and overseeing the implementation of projects.
    - Developing detailed requests for proposals on committed projects.
    - Obtaining and reviewing vendor bids.
    - Performing and/or refining energy analysis as project scope matures.
    - Acquiring and reviewing trend data as required by the program or to help inform an investment decision.
    - Assisting with and reviewing rebate applications.

  As part of the implementation support process, the program contractor will have the unique opportunity to engage and educate a subset of trade allies on all Industrial Partners program details, including how to leverage the program with all customers to sell energy efficiency projects.
- **System Optimization** – Industrial Partners participants have the option of a comprehensive study option to analyze a facility's compressed air, industrial refrigeration, and/or process cooling systems to identify cost-effective energy efficiency opportunities. Approved system optimization studies will be provided at no cost to customers.
- **Equipment incentives** – Prescriptive rebates, as outlined in the Nonresidential Equipment program, will apply to projects in the Industrial Partners program. Custom rebates are set at 25 percent of incremental cost or an amount that buys down the project to 25 percent of its useful life, whichever is greater. Custom project rebates will be capped at a two year simple payback and cannot exceed 60 percent of the eligible project cost.
- **Enhanced incentives** – Enhanced incentives will be offered to encourage implementation multiple projects. Bonus incentives may not reduce the simple payback period for the project to less than one year, and the total incentive with bonus cannot exceed 80 percent of the eligible project cost.

Detailed incentive levels for each measure offered in this program are provided in Appendix A. MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Marketing Plan

General Marketing Plan

MidAmerican will target industrial facilities primarily through its key account managers. MidAmerican also will use traditional and non-traditional marketing channels to provide education and outreach to customers, trade allies and trade organizations to encourage customer participation and implementation of energy efficient measures and equipment.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjusts materials as needed based on program adjustments and market characteristics. Customer-facing program information will include specific information regarding eligible CHP projects when applicable.

Customer Targets

The program targets existing industrial (manufacturing) facilities of any size.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Nonresidential electric rates	Nonresidential natural gas rates Gas transportation customers with daily metering are ineligible
Customer Status	Customer facility or company management	Customer facility or company management
Building Type	Industrial facilities (manufacturing); exceptions for large complex commercial campuses or commercial applications on an industrial campus may be accepted by the program	Industrial facilities (manufacturing); exceptions for large complex commercial campuses or commercial applications on an industrial campus may be accepted by the program
Building Vintage	Existing facility	Existing facility
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory
Building Size	All	All

Trade Ally Targets

The program relies primarily on the following trade allies for program delivery:

- Lighting dealers and installers
- Insulation contractors
- HVAC contractors
- Mechanical, electrical and equipment contractors
- System optimization service providers
    - Compressed air
    - Refrigeration
    - Process cooling

Trade allies play a key role in supporting the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program.

The Industrial Partners program will include an expanded trade ally initiative to educate a subset of trade allies on program details, including how to leverage the program with all customers to sell energy efficiency projects, which will enable trade allies to further assist their customers with projects.

Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will engage in a promotional strategy that will include:

- Direct outreach to industrial customers in coordination with key account managers.
- Direct outreach to targeted trade allies.
- Ongoing trade ally education about program procedures and benefits, qualifying measures, and equipment and rebate structures.
- Promotional and educational activities, such as workshops and presentations for customers as well as other stakeholders in the community.
- Attendance and program promotion at conferences and trade shows.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter that is sent with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website will appear periodically on customer bills and in the electronic newsletter.

Program referrals also are expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications.

To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican will develop a recognition program for Key Account Manager performance by January 2014 which will recognize and incent Key Account Managers for performance to ensure they provide the customer with education and support regarding energy efficiency programs. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Commercial New Construction Program

Description of Program

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

Transportation gas customers with daily metering are ineligible for gas incentives. However, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

The program will offer services through five program tracks, tailored to the varying needs of different market segments. The five tracks include:

- **Track I** – targets smaller projects that can be served effectively through an online energy modeling and decision-making tool, conference call assistance, and limited face-to-face meetings. Several building types up to 15,000 square feet are eligible.
- **Track II** – targets projects larger than 15,000 square feet interested in pursuing more standard energy efficiency strategies. This track readily can accommodate fast-track projects, often smaller in size or with less complicated designs.
- **Track III** – targets projects larger than 15,000 square feet interested in pursuing customized energy efficiency strategies. This track provides energy modeling of custom efficiency strategies selected by the owner/design team.
- **Track IV** – targets projects that are interested in pursuing advanced energy efficiency strategies. This track supports strategies required for certification by national market transformation programs such as Leadership in Energy and Environmental Design (LEED) – Optimize Energy Performance or federal tax deductions.
- **Track V** – targets projects that have already participated in the Commercial New Construction program and are interested in additional assistance to achieve ongoing performance and increased energy savings. In this track the energy use of the building is modeled with the actual occupants, equipment and schedules. Additional strategies are proposed to help reduce the overall energy use of the building given the current operational needs.

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

Data Centers – It is important to note that newly constructed data centers are served through the Commercial New Construction program and will be placed in the appropriate track. Due to the energy intensity of these building types, they are prime targets for energy efficient design measures. Energy saving design opportunities will be identified for the customer's unique data center environment.

Measure List

All measures or strategies that improve energy efficiency relative to the State of Iowa Energy Code are potentially eligible for the Commercial New Construction program. Typical measures include:

- Glazing systems and window layouts
- Daylighting controls
- Envelope systems
- Lighting controls and lighting designs
- Heating and cooling systems
- Load-responsive fan and pump motor controls
- Outside air control systems
- Other strategies unique to the project, such as data centers

MidAmerican performs an annual review of qualifying measures and may adjust measures and eligibility requirements as market conditions and equipment standards change.

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Commercial New Construction program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,241,763	$ 5,446,313	$ 6,688,076
2015	$ 1,272,807	$ 5,463,839	$ 6,736,646
2016	$ 1,304,627	$ 5,474,431	$ 6,779,058
2017	$ 1,337,243	$ 5,484,755	$ 6,821,998
2018	$ 1,370,674	$ 5,463,283	$ 6,833,957
Total	$ 6,527,114	$ 27,332,619	$ 33,859,733

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 611,566	$ 1,284,007	$ 1,895,573
2015	$ 626,855	$ 1,266,481	$ 1,893,336
2016	$ 642,526	$ 1,255,889	$ 1,898,415
2017	$ 658,589	$ 1,245,565	$ 1,904,154
2018	$ 675,054	$ 1,267,037	$ 1,942,091
Total	$ 3,214,590	$ 6,318,979	$ 9,533,569

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,853,329	$ 6,730,320	$ 8,583,649
2015	$ 1,899,662	$ 6,730,320	$ 8,629,982
2016	$ 1,947,153	$ 6,730,320	$ 8,677,473
2017	$ 1,995,832	$ 6,730,320	$ 8,726,152
2018	$ 2,045,728	$ 6,730,320	$ 8,776,048
Total	$ 9,741,704	$ 33,651,598	$ 43,393,302

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Commercial New Construction program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	31,287,211	3,967
2015	31,287,211	3,967
2016	31,287,211	3,967
2017	31,287,211	3,967
2018	31,287,211	3,967
Total	156,436,056	19,833

Gas Savings	Annual Therms	Peak Therms
2014	400,994	1,192
2015	400,994	1,192
2016	400,994	1,192
2017	400,994	1,192
2018	400,994	1,192
Total	2,004,968	5,961

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 128,155,122	$ 20,132,258	$ 148,287,379
Program Costs	$ 58,930,541	$ 12,787,785	$ 71,718,326
Net Economic Benefits	$ 69,224,580	$ 7,344,473	$ 76,569,054
Societal Test Ratio	2.17	1.57	2.07

Operations

Description of Operations

The program uses a similar process for each of the first four energy design assistance tracks, although services are tailored to project timing, technical expertise and other needs of each market segment.

Key steps in program operation include:

- **Application** – The design team or owner submits an application form to prequalify the project.
- **Screening** – MidAmerican screens the project to verify that it meets program guidelines.
- **Strategy discussion** – Upon acceptance, MidAmerican's energy design consultant facilitates energy design assistance meetings with the design team to develop optional energy conservation strategies for analysis.
- **Consultation** – The program contractor facilitates discussions and energy modeling of various energy-saving strategies. A final energy design report is provided to the owner and design team describing implementation, energy savings and simple paybacks for the strategies. MidAmerican pays a design team participation incentive to help offset the design team members' expenses associated with program participation.
- **Selection** – The building owner and design team choose strategies that will be incorporated into construction. After energy-saving strategies are chosen, the construction phase begins.
- **Design requirements provided** – MidAmerican Energy provides a list of design requirements necessary to achieve the energy efficiency goal and the full incentive.
- **Construction document review** – For select projects, generally larger than 50,000 square feet, the program contractor will review the final construction documents to locate the energy design strategies the owner selected. A construction document review will identify the percentage of achievement to the energy efficiency goal. A Construction Document Review report is provided to the owner to allow for adjustments to the construction documents for energy strategies that were inadvertently omitted.
- **Final verification** – After construction is completed and the building is occupied, MidAmerican Energy's consultant will review final documents to create a final verification report and may conduct a site visit.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican staff process rebates and maintain the database for tracking and reporting purposes.

Track V, the Ongoing Performance Track, is available to participants following any of the other four energy design assistance tracks and involves the following key benchmarking and selection steps:

- **Ongoing Performance Track customer selection** – Customers who have completed the Commercial New Construction program and have been in operation for at least one year will be selected for benchmarking.
- **Benchmarking** – Actual metered energy use for selected customers will be compared to the energy use projections of the Commercial New Construction energy model created during the design phase prior to construction and occupancy.

- **Targeting of customer projects** – Buildings that are using significantly more energy than original energy model projections will be targeted for participation.
- **Identification of additional projects** – Customers who are interested in ongoing performance and have potential for further savings in their building operations will be accepted into this program track.

Key steps in Ongoing Performance Track operation include:

- **Program enrollment** – The customer enrolls in program.
- **Adjustment of energy model** – The original energy model is adjusted for as-operated conditions, including building occupancy, building use, weather and other operational changes.
- **Establishment of performance targets** – Performance targets are set based on percentage improvements beyond those predicted by the original energy model.
- **Identification of measures** – The program contractor will work with building owners and operators to identify measures to further reduce energy use.
- **Calculation of incentives** – Incentives are calculated and offered.
- **Provision of data** – Building owners/operators, via a Web interface, will be provided with monthly data on actual building energy use with comparisons to performance targets (adjusted as needed) in a format consistent with existing benchmarking and measurement tools (e.g., EPA's Portfolio Manager software), which will allow participants to pursue additional national recognition and building certifications (e.g., the ENERGY STAR label), if desired.
- **Implementation of strategies** – The building owner/operator implements strategies and monitors energy use compared to energy model expectations via an online tool.
- **Incentive payments** – Incentive payments will be provided directly to building owners.
- **Continuous performance tracking** – The program contractor and the building owner will continue to track performance online for up to two years after completion.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development, and provides promotion, trade ally support, evaluation, and other administrative functions.

The program is delivered through the assistance of a program contractor(s) that provides energy design assistance, project management and verification services. The contractor(s) also helps MidAmerican strengthen relations with key trade allies. A fulfillment contractor assists with data tracking and rebate processing.

MidAmerican currently contracts with The Weidt Group, Inc. and A-TEC Energy Corporation for administrative and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits.

Financial benefits including:

- Free energy design assistance and modeling.
- Comprehensive construction incentives that reduce the payback period of selected energy efficiency measures.
- Increased property values due to lower monthly operating costs, investment in advanced efficiency technologies and improved building operation and comfort.
- Ongoing performance incentives (for participants pursuing that track).

Decision support including:

- High-quality information on the costs and benefits of energy efficiency strategies customized to the building.
- Detailed design specifications for selected measures.
- Online view of building energy performance to energy model projections (for participants pursuing the Ongoing Performance Track).

Confidence in final design decisions due to:

- Owner/developer involvement in the measure selection and review process.
- Independent verification that selected measures are included in design specifications construction documents, and final installation.

Market Barriers

The table below presents the key market barriers to an effective commercial new construction program and strategies the program uses to address each barrier. Note these program strategies can only partially offset the barriers.

Market Barriers and Strategies

Market Barriers to Energy-Efficient Buildings	Program Strategies
Higher cost of building due to energy efficient strategies	Offer incentives to help offset costs at the design phase as well as at the construction phase Provide education during the process to help customers understand the benefits to these strategies
Limited time to engage in long design process	Offer incentives to design team as compensation for time Use a streamlined, efficient and responsive program process Help design team bring added value to their customers
Lack of customer awareness of alternative design strategies	Provide free design assistance Encourage high-level decision-maker involvement throughout the design process Support program with education appropriate to different types of program participants (e.g., designers, owners, etc.)
Customers value design features over efficiency; reluctant to spend resources on energy features	Raise customer awareness through energy design assistance process Focus on long-term benefits of energy efficiency features Provide rebates to lower incremental cost of efficiency features Provide energy model results for the new technology to encourage implementation in this building or their next project

Market Barriers to Energy-Efficient Buildings	Program Strategies
Low customer awareness of program	Ongoing trade ally communications and outreach Marketing and outreach to targeted customers
Low trade ally awareness	Ongoing trade ally support and education Ensure trade allies are aware that training sessions for this program are eligible for LEED Continuing Education Credit
Late project involvement in program	Develop relationships with architects to ensure contact as early as possible in the design stage Educate designers and developers about program requirements and commitments Provide information regarding prescriptive and custom incentives offered through the Nonresidential Equipment program

Incentives

MidAmerican offers the following financial incentives to participants:

- **No-Cost Energy Design Assistance** – MidAmerican's program contractor works with customers, architects and developers during the planning and design stage and studies and tests energy efficiency strategies to be incorporated into construction plans.
- **Design Team Incentives** – Architects and engineers must dedicate considerable resources to the energy design process. To prevent the extra cost from being allocated to the customer, design team participants receive incentive payments to help offset expenses associated with program participation. At the time of filing, the program offers:
  - Track I – $1,000
  - Track II – $3,500
  - Track III – $5,500
  - Track IV – $6,500, $7,500, or $8,500 (depends on number of modules)
  - Track V – N/A
- **Construction Incentives (Tracks I – IV)**– Construction incentives are paid to the building owner when a target level of energy savings above Iowa Energy Code is achieved. Construction incentives are designed to help offset the additional cost of optimizing energy efficiency strategies in the construction of commercial buildings. At the time of filing, the program offers incentives for projects resulting in at least 15 percent energy savings above code, based on ASHRAE-90.1-2007. (The program will update the code baseline for new project starts when Iowa adopts the new code.) Incentives increase with savings, from $0.06/kWh and $0.60/therm to $0.19/kWh and $1.90/therm for savings ranging from 15 percent to 60+ percent above baseline. Incentives may be revised during the plan, particularly for compatibility with Iowa's expected energy code changes. Project incentives will be capped at a one year simple payback, may not exceed 70 percent of the total

bundled incremental project cost beyond energy code requirements, and may not exceed $1 million per building.

- **Ongoing Performance Track Incentives (Track V) –** For selected buildings, at least two years after construction completion, the energy use of the building is modeled with the actual occupants, equipment and schedules. Additional strategies are proposed to help reduce the overall energy use of the building given the current operational needs. Incentives are offered to help offset the additional cost of achieving increased energy savings. Incentives are paid to the building owner based on energy savings of at least 5 percent reduction from baseline of current energy use, minus the energy savings incented through Commercial New Construction program participation. Incentives increase with savings, from $0.05/kWh and $0.50/therm to $0.14/kWh and $1.40/therm for savings ranging from 5 percent to 35+ percent above baseline. Project incentives will be capped at a one year simple payback, may not exceed 70 percent of the total bundled project cost, and may not exceed $1 million per building.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target new construction projects using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and building community organizations, to encourage customer participation and implementation of energy efficient measures and equipment. MidAmerican's program contractor also will facilitate joint utility marketing efforts for the program through a combination of education and direct outreach, targeting both the demand and supply sides of the commercial new construction market.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

The program targets owners, builders and developers engaged in new construction or major renovations of buildings in the commercial sector, including qualifying multifamily housing facilities.

This program is not designed to assist industrial customers constructing new manufacturing facilities and processes. These customers are eligible for services for new manufacturing facilities under the Nonresidential Equipment and Energy Analysis programs. However, industrial customers building new non-process buildings (e.g., office space, non-process warehouses, etc.) are eligible for this program.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Nonresidential electric rates	Nonresidential natural gas rates Gas transportation customers with daily metering are ineligible
Customer Status	Building owners and developers	Building owners and developers
Building Type	Commercial buildings (i.e., non-manufacturing)	Commercial buildings (i.e., non-manufacturing)
Building Vintage	Tracks I-IV New construction Major renovation Track V At least one year old, previous participation in the program	Tracks I-IV New construction Major renovation Track V At least one year old, previous participation in the program
Geography	MidAmerican Iowa service territory*	MidAmerican Iowa service territory*
Building Size	Minimum of 5,000 sq. ft.	Minimum of 5,000 sq. ft.

*When possible, MidAmerican will coordinate with other participating utilities in a joint effort.

Trade Ally Targets

The program relies primarily on the following trade allies for program delivery:

- Architect and engineering firms
- Developers
- Construction firms/building contractors
- Design-build contractors
- Mechanical, electrical and equipment contractors

Trade allies play a key role in supporting the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will engage in a multifaceted promotional strategy that will include:

- Direct outreach to commercial building owners, architectural and engineering firms, builders, developers and trade allies.
- Promotional and educational activities, such as workshops and presentations for customers as well as other stakeholders in the nonresidential building community.
- Attendance and program promotion at architectural and building conferences and trade shows.
- Recognition and awards to trade allies and customers for successful projects.
- Advertisements and case studies in appropriate professional and trade journals and publications.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter provided with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website will appear periodically on customer bills and in the electronic newsletter.
- Earned media from press releases regarding successful, high-profile projects.

Program referrals also are expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Nonresidential Load Management Program

Description of Program

The Nonresidential Load Management program provides large nonresidential customers with financial incentives to reduce demand during MidAmerican's system peak hours. Customers must commit to providing a specified amount of load reduction when called for by MidAmerican during the curtailment season (June 1 to September 30). Customers use one of three strategies to reduce demand during curtailment events: they shed load, shift load to non-peak periods or generate replacement power with on-site generators. MidAmerican staff and customers use a near-real time monitoring software system to monitor load levels in near-real time during curtailment events. Customers also receive ongoing support from their key account managers to assist them with program compliance and support. The program is marketed to customers as the Nonresidential Load Management program.

Measure List

The Nonresidential Load Management program provides rebates and incentives for peak demand reduction using one or more of the following methods:

- On-site generator(s)
- Shed load
- Shift load to non-peak hours

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Nonresidential Load Management program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 561,060	$ 7,981,249	$ 8,542,309
2015	$ 575,087	$ 7,981,249	$ 8,556,336
2016	$ 589,464	$ 7,981,249	$ 8,570,713
2017	$ 604,201	$ 7,981,249	$ 8,585,450
2018	$ 619,306	$ 7,981,249	$ 8,600,555
Total	$ 2,949,118	$ 39,906,245	$ 42,855,363

There are no gas costs associated with this program.

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Nonresidential Load Management program are as follows:

Electric Savings	Annual kWh	Peak kW
2014	5,154,450	245,947
2015	5,154,450	245,947
2016	5,154,450	245,947
2017	5,154,450	245,947
2018	5,154,450	245,947

There are no gas savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ 211,726,888	$ -	$ 211,726,888
Program Costs	$ 2,810,787	$ -	$ 2,810,787
Net Economic Benefits	$ 208,916,102	$ -	$ 208,916,102
Societal Test Ratio	75.33	-	75.33

Operations

Description of Operations

The program is delivered through MidAmerican's regulatory strategic analysis, key account management and electric trading staff.

Key steps in program participation include:

- **Program contract** – Customer signs a one-year or three-year program contract, which describes the rights and responsibilities of customers and MidAmerican in program operations as defined by the curtailment tariff rider.
- **System installation** – Necessary hardware and software systems, which require, at a minimum, electric meters that can record interval data, as well as communication lines (telephone or Internet TCP/IP) to transmit the interval data to MidAmerican for monitoring and evaluation are installed.
- **Test event** – Program operations are tested during an optional mock curtailment event that MidAmerican conducts each year prior to the curtailment season.
- **Event notice** – Notice of curtailment events is provided to customers at least two hours in advance of events, but commonly up to 24 hours in advance.

- **Event operation** – Curtailment events are triggered by guidelines detailed in the tariff rider and communicated to customers through personal communications from key account managers and via monitoring software.
- **Performance evaluation** – Customer and program performance is evaluated after the curtailment season.
- **Incentive processing** – Incentives are calculated and curtailment payments are processed and delivered directly to customers.

Participants are required to provide a dedicated meter data communication line (telephone or Internet TCP/IP) in order to use MidAmerican's Web-based software application for monitoring electric loads and curtailment performance in near-real time during curtailment events. This software also includes energy analysis modules that can help customers track and manage energy consumption and costs throughout the year. These additional modules are provided at no cost to customers. Customers also may choose to install additional systems to help their facilities meet their curtailment requirements (e.g., generators, control systems). Under the terms of the tariff riders, customers that do not fully meet their contract requirements may be penalized by MidAmerican and/or removed from the program.

Description of Outside Services

MidAmerican energy efficiency staff provide overall strategic direction for the program, including research and development, promotion, trade ally support, evaluation and other administrative functions.

MidAmerican utilizes Itron Inc.'s Curtailment Manager/Customer Care Web-based data management software application. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits:

- Financial benefits in the form of incentive payments that compensate customers for reducing load during MidAmerican's system peak hours.
- Detailed information that helps them manage their energy consumption, including advice from key account managers on curtailment strategies, near-real time load monitoring and other tools available through MidAmerican's monitoring software and analyses of interval load data.
- Customers make a positive impact on future generation needs by shifting energy use away from peak times, reducing the need for construction of additional electric generation.

Market Barriers

The table below presents the key market barriers to an effective nonresidential load management program and the strategies the program uses to address each barrier. Note that these strategies may only partially offset the barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Pending EPA rules may prevent customers with older non-compliant generators from participating	Target load shedders, shifters and customers with newer (EPA compliant) generators
Customers incur costs, lose revenue and experience operational disruptions when curtailing load	Provide financial incentives Work with customer to identify effective curtailment strategies Provide case study examples of successful curtailment strategies, including shed, shift and generate
Program requirements not well understood	Provide program brochures, contracts and tariffs that clearly explain program requirements Provide ongoing support from key account managers and program implementation staff to help customers understand program requirements
Lack of customer awareness	Targeted marketing campaign Use other nonresidential programs to recruit eligible curtailment prospects Utilize trade allies to recruit curtailment prospects
Customers do not understand their peak demand loads or potential to curtail	Work with customers to analyze summer peak load data Provide engineering assistance if needed, through Nonresidential Energy Analysis program

Incentives

Incentives are defined on the basis of dollars per contracted kilowatt demand reduction versus achieved kilowatts of reduced demand. Customers are offered either one-year or three-year contracts in which they must commit to specified curtailable load levels for all curtailment events. Payment is made at the end of the curtailment season, after MidAmerican evaluates performance. Customers delivering curtailed load below that which is required by curtailment contracts receive payment equivalent to the percentage of curtailment achieved. For example, a customer delivering

only 90 percent of its contract amount receives 90 percent of the total contract incentive. Customers cannot receive more than 100 percent of their contract incentive, even if they deliver curtailed load above their contract requirements. One-year contracts will receive $40 per kilowatt per season; three-year contracts will receive $46 per kilowatt per season.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future via tariff filing as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

The program is primarily marketed to the target key account customer base through one-on-one interaction with key account managers. Occasionally the program website generates leads for potential new participants.

Customer Targets

This program targets large electric customers with a minimum of 250 kilowatts of curtailable load during MidAmerican's peak demand periods. These target customers include:

- Customers with on-site generation already installed for emergency purposes.
- Industrial customers who can shed or shift process activities during system peak hours,
- Customers with energy management systems or other controls that allow them to shift or shed load during system peak hours.
- Customers in manufacturing, warehousing, hospitals, government, large offices and data/call centers.
- Customers with consistent load patterns throughout the summer period.
- Sophisticated customers with on-site energy managers.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment
Customer Class	Nonresidential electric rates serving larger customers
Customer Status	Customer facility or business owners
Building Type	All
Business Type	All
Building Vintage	Existing and new construction
Geography	MidAmerican's Iowa electric service territory
Size	Able to provide at least 250 kilowatts of curtailable load

Trade Ally Targets

This program is primarily delivered through MidAmerican's internal staff. However, trade allies providing services and equipment that enable customer participation also can be helpful in identifying potential new participants. These include:

- Firms that sell, specify or service emergency generators
- Firms that sell, specify or service energy management systems

To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

The promotional strategy for this program relies primarily on one-on-one marketing to prospective customers by key account managers. The program is promoted through a program brochure that clearly explains 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 on MidAmerican's energy efficiency website. The program also is supported by MidAmerican's general awareness advertising.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Appliance Recycling Program

Description of Program

The Appliance Recycling program offers financial incentives to customers who stop using old, inefficient refrigerators, freezers and room air conditioners and helps them dispose of the old units in an environmentally responsible manner. It provides rebates to customers participating in the program and also provides free pick up and disposal of old appliances. The program is marketed under the name Appliance Recycling program.

The objectives of this program are to assist customers with disposal of their existing unit when they purchase a new one and to prevent migration of the old unit to the secondary market for used, inefficient appliances in MidAmerican's service territory. The program extends to working qualifying equipment and does not require purchase of new equipment to participate.

The program primarily targets residential electric customers, but is available to all electric customers recycling residential-sized equipment. Program measures must save energy supplied directly by MidAmerican.

Measure List

The Appliance Recycling program provides rebates and incentives for the following measures:

- Refrigerators
- Freezers
- Window air conditioners
- Energy savings leave-behind kits – including two compact flourescent lamps

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Appliance Recycling program is as follows:

Residential Budget

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 658,088	$ 1,355,452	$ 2,013,540
2015	$ 674,540	$ 1,355,452	$ 2,029,992
2016	$ 691,404	$ 1,355,452	$ 2,046,856
2017	$ 708,689	$ 1,355,452	$ 2,064,141
2018	$ 726,406	$ 1,355,452	$ 2,081,858
Total	$ 3,459,127	$ 6,777,260	$ 10,236,387

Nonresidential Budget

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 20,353	$ 40,484	$ 60,837
2015	$ 20,862	$ 40,484	$ 61,346
2016	$ 21,384	$ 40,484	$ 61,868
2017	$ 21,919	$ 40,484	$ 62,403
2018	$ 22,467	$ 40,484	$ 62,951
Total	$ 106,985	$ 202,420	$ 309,405

There are no gas costs associated with this program.

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Appliance Recycling program are as follows:

Residential Savings

Electric Savings	Annual kWh	Peak kW
2014	9,094,477	1,382
2015	9,094,477	1,382
2016	9,094,477	1,382
2017	8,849,746	1,057
2018	8,849,746	1,057
Total	44,982,923	6,259

Nonresidential Savings

Electric Savings	Annual kWh	Peak kW
2014	269,753	49
2015	269,753	49
2016	269,753	49
2017	262,176	39
2018	262,176	39
Total	1,333,610	226

There are no gas savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 11,631,538	$ -	$ 11,631,538
Program Costs	$ 7,835,586	$ -	$ 7,835,586
Net Economic Benefits	$ 3,795,951	$ -	$ 3,795,951
Societal Test Ratio	1.48	-	1.48

Nonresidential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 381,767	$ -	$ 381,767
Program Costs	$ 235,480	$ -	$ 235,480
Net Economic Benefits	$ 146,287	$ -	$ 146,287
Societal Test Ratio	1.62	-	1.62

Operations

Description of Operations

MidAmerican's program contractor will determine eligibility of appliances requested for recycling, will pick up eligible appliances at customer premises for no charge and will arrange for environmentally responsible disposal of the appliances. To be eligible for program services and rebates, appliances must be working and, for refrigerators, at least 10 cubic feet in size.

Environmentally responsible disposal involves removing chlorinated fluorocarbons (CFCs) from the refrigerant (and possibly foam insulation), preparing refrigerant for reclamation or recycling, and recycling other materials such as metal (and possibly plastic) components.

Key steps in program participation include:

- **Appliance pick-up scheduling** – The customer calls the program contractor to schedule a pickup, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule pickup.
- **Equipment qualification** – The program contractor determines whether the equipment is eligible for an incentive.
- **Recycling process** – The program contractor picks up the appliance, transports the appliance to a recycling facility, recycles applicable components and appropriately disposes of remaining components.
- **Tracking appliances** – The program contractor maintains documentation to demonstrate that the materials are recycled appropriately.
- **Leave behind kit** – The program contractor will leave behind an energy savings kit to promote other ways to save energy.

- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development, and provides promotion, trade ally support, evaluation and other administrative functions.

The program contractor will provide turnkey services to manage and administer the program, including marketing the program, processing applications, tracking program data, answering questions from customers and providing customer and transaction information to MidAmerican for rebate tracking.

MidAmerican currently employs Jaco Environmental for management and administrative services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits:

- Customers eliminate the hassle and cost associated with disposing of large inefficient and unwieldy appliances.
- Customers save money through rebates and reduced energy bills.
- Customers can trust that the materials in their old appliances have been recycled to the greatest extent possible and disposed of properly.

Market Barriers

The following table presents the key market barriers to a successful appliance recycling program, and the strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Time required to fill out incentive forms	Provide simple forms at the time of appliance pickup Allow retail trade allies to fill in participation forms for customers at the time of equipment purchase
Lack of customer awareness	Consumer education and outreach Program promotion/advertising Promote through other residential programs Trade ally outreach sales training
Low dealer awareness	Ongoing dealer communications, outreach and education
Trade allies not selling program	Provide trade ally training and outreach to explain the benefits of participating in the program Market program and general efficiency awareness to trade allies
Time required to schedule pick up	Encourage dealers to arrange to have old units picked up directly from the customers' homes with delivery of new appliance
Customers feel they need an extra refrigerator	Customized educational materials that highlight the cost to operate an old refrigerator or freezer Explain environmental benefits of eliminating inefficient appliances

Incentives

MidAmerican offers the following financial incentives to participants:

- **Free pick up and disposal** – Customers receive free pick up and disposal of appliances.
- **Rebates** – An incentive is paid to the customer on a per-unit recycled basis.

MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential sector customers using traditional retail marketing channels, provide education and outreach to customers and trade allies, to encourage customer participation.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Trade Ally Targets

Any business that sells qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Appliance stores
- Electronics stores
- Home improvement stores

Trade allies play a key role in promoting the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Customer Targets

This program primarily targets residential electric customers who own working refrigerators, freezers or air conditioners as well as customers purchasing new appliances. Non-residential customers are welcome to participate but are not aggressively targeted. One of the objectives of this program is to prevent customers who currently use one qualifying appliance from keeping their existing units when they purchase new ones. Also, the program is designed to prevent growth in the secondary market for used, inefficient appliances in MidAmerican's service territory.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Customers
Customer Class	All electric rates
Customer Status	All
Building Type	All
Building Vintage	All
Geography	MidAmerican Iowa electric service territory
Size	All

Promotion

MidAmerican will promote the program through periodically inserting program information with customer bills. The bill insert will reference the energy efficiency website, which features a dedicated Web page that includes program information and qualification requirements, an online form to submit contact information to schedule a pickup, and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills.

Program referrals are expected from retail trade allies. The program contractor will partner with retail stores to pick up an old refrigerator for recycling during the delivery of a new refrigerator. Information will be available on the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically email program information and provide point-of-sale information to appliance dealers. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Upstream Retail Lighting Program

Description of Program

The Upstream Retail Lighting program promotes the purchase of energy-efficient equipment by customers in new and existing buildings. The program coordinates with upstream suppliers and retailers to discount the selling price of the efficient lamp, providing retailers with incentives to allow them to lower the selling price of efficient lighting. Targeted lighting includes compact fluorescent lamps and light emitting diodes. The program is marketed under the name *Be Bright!*

The program is available to all residential and nonresidential customers and landlords for both new and existing buildings in MidAmerican's Iowa service area. Program measures must save electricity supplied directly by MidAmerican.

Measure List

The Upstream Retail Lighting program provides rebates and incentives for the following measures:

- Compact fluorescent lamps – CFL's
- Light emitting diodes bulbs and fixtures – LED's
- Specialty lighting
- Exterior lighting

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Upstream Retail Lighting program is as follows:

Residential Spending

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 344,605	$ 2,021,737	$ 2,366,342
2015	$ 353,220	$ 2,646,703	$ 2,999,923
2016	$ 362,051	$ 2,804,918	$ 3,166,969
2017	$ 371,102	$ 2,863,579	$ 3,234,681
2018	$ 380,380	$ 2,897,241	$ 3,277,621
Total	$ 1,811,358	$ 13,234,178	$ 15,045,536

There are no gas costs associated with this program.

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Upstream Retail Lighting program are as follows:

Residential Savings

Electric Savings	Annual kWh	Peak kW
2014	30,043,312	3,587
2015	31,965,980	3,817
2016	32,352,081	3,863
2017	32,660,073	3,899
2018	32,151,961	3,839
Total	159,173,407	19,005

There are no gas savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 71,134,334	$ -	$ 71,134,334
Program Costs	$ 41,893,399	$ -	$ 41,893,399
Net Economic Benefits	$ 29,240,935	$ -	$ 29,240,935
Societal Test Ratio	1.70	-	1.70

Operations

Description of Operations

The Upstream Retail Lighting program is delivered by MidAmerican's contractor in partnership with lighting manufacturers, retail outlets and lighting distributors selling qualifying lighting products.

Key steps in program participation include:

- **Equipment qualification** – The program contractor determines whether the lighting is eligible for an incentive. The program contractor conducts a regional bidding process that allows retailers and manufacturers to qualify the type and quantity of eligible lighting products.
- **Program participation** – The customer purchases the eligible lighting during the campaign. The rebate is applied to the purchase price of the lighting product. The retailer provides sales data to program contractor.

- **Rebate processing and database maintenance** – The program contractor processes incentive payments to the retailer and maintains the database for tracking and reporting purposes.
- **Verification** – The program contractor verifies that retailer signage and pricing meets program guidelines. The program contractor also verifies levels of participation by obtaining register sales data from each retailer.

Description of Outside Services

MidAmerican staff provide overall strategic direction for the program, as well as conduct research and development, promotion, evaluation and other administrative functions.

MidAmerican uses a single contractor to deliver the program. The contractor handles coordinating manufacturers, retailers and lighting distributors, tracking program data, providing retail training, providing retail signage, answering questions from dealers and customers, and coordinating rebate distribution to retail partners and lighting distributors.

MidAmerican currently contracts with Wisconsin Energy Conservation Corporation for management and administrative services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive four main benefits:

- Customers save money in the short term through lower purchase prices and in the long term through lower utility bills.
- Customers receive education about high quality, energy-efficient lighting from a trustworthy source through informational point-of-sale signage.
- Customers receive financial assistance through lower purchase prices and information to assist them in transitioning to new technology.
- The process is simple and straightforward. Lighting rebates are accessible to any qualifying customer for any qualifying equipment. There are no rebate forms to process.

Market Barriers

The table below presents the key market barriers to an effective retail lighting program, as well as strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Higher first cost of energy-efficient equipment	Offer rebates Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Time required to fill out rebate forms	Point-of-sale rebates for *Be Bright* campaign eliminates the need for forms
Customers unawareness with the technology	Educate consumers on the new technologies like LED's through point of purchase signage Provide customers with the results from "Top 10" testing of lighting products to assist them in determining and purchasing the right product for their specific need
Customers don't bother to look for qualifying measures	Retailer training to help customers quickly identify appropriate products In-store information signage Market program and general efficiency awareness to customers Provide efficiency education to customers
Trade allies not up-selling to high-efficiency lighting	Provide trade ally training and outreach to explain the benefits of selling higher efficiency lighting Market program and general efficiency awareness to trade allies
Lack of availability of qualifying lighting	Promote programs to customers so they ask for qualifying lighting and dealers stock it Trade ally training Upstream market support in Be Bright! campaign

Market Barriers	Program Strategies
Customers don't understand the long-term value of high-efficiency lighting	Train trade allies to explain life-cycle costs to customers Market program and general efficiency awareness to customers Provide efficiency education to customers
Dealers are unaware of program	Provide outreach and marketing to dealers

As both residential and nonresidential customers are eligible for the program, there is a chance that nonresidential customers may purchase a qualifying product from one of the participating retailers or lighting distributors and then send in for an additional rebate through the Nonresidential Equipment program, which provides rebates for the same measures.

MidAmerican has a procedure in place to check the lighting rebate application invoice against the list of participating retailers and lighting distributors and verify the model numbers of the lighting products. In cases where the customer has already received a rebate through the lower point-of-sale purchase price, the customer would be notified that they already received an upstream rebate and no additional rebates are available. As many nonresidential customers purchase lighting materials from a single lighting distributor, it is necessary to offer these qualified products in the Nonresidential Equipment program. Otherwise an electrical contractor doing a lighting remodel would have to purchase from multiple lighting retailers and electrical distributors. This may be difficult in rural areas.

Incentives

The program provides incentives to retailers to provide lower prices at the cash register on a per-product basis to program participants purchasing qualifying lighting products. The rebate will be a fixed amount per lighting product. The retailer provides sales data to the program contractor for payment.

The program contractor sets the incentive pricing through a regional bidding process with retailers and manufacturers. MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target residential sector customers using traditional retail marketing channels and nonresidential sector customers through the lighting distributors. MidAmerican will provide education and outreach to customers and trade allies organizations to encourage customer participation and implementation of energy efficient measures and equipment. Additional education and marketing will be undertaken to further educate customers on LED technologies and its common uses in homes and businesses today.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

The target market for this program includes residential customers and nonresidential customers in existing and new buildings. The program also uses tariff rates to target and qualify customers.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment
Customer Class	Residential and nonresidential electric rates
Customer Status	All customers
Building Type	Single-family; Multi-family; Mobile home, Non residential
Building Vintage	Existing and new construction
Geography	MidAmerican Iowa electric service territory

Trade Ally Targets

Any business that sells or installs qualifying lighting products within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Big-box retail stores
- Hardware stores
- Home improvement stores
- Grocery stores
- Discount retailers
- Lighting distributors

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, the program contractor actively recruits, trains and engages the retailer to encourage participation.

Promotion

MidAmerican will promote the program through bill inserts, newspaper advertising, radio advertising, online advertising, cooperative advertising and educational fact sheets. The bill inserts will reference the dedicated *Be Bright*! website. MidAmerican will purchase advertising in coordination with other participating utilities and provide funds to retailers for cooperative advertising.

MidAmerican call center associates will recommend the program to likely participants and, when appropriate, transfer customers to the program call center operated by the program contractor.

Program referrals are also expected from trade allies. The program contractor will recruit and train participating retailers on benefits of efficient lighting products. Program information will be available on a dedicated Iowa program website, which features a store locator and educational information.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Low-Income Program

Description of 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 program includes three residential components – weatherization, Energy Wise and Home Energy Reports, and a multi-family component. Weatherization only addresses single-family housing whereas Energy Wise and Home Energy Reports also are available to apartment dwellers.

The weatherization program is delivered through the Iowa Department of Human Rights (IDHR), which contracts with local community action program (CAP) agencies and other subcontractors to deliver program services. The Energy Wise program is delivered by the CAP agencies with guidance and training provided by an implementation contractor employed by MidAmerican, Interstate Power & Light Company (IPL) and Black Hills Energy (Black Hills). The Home Energy Report component is new and consists of the Home Energy Reports described in the Residential Behavioral program, with messaging specifically crafted for low-income customers.

The Low-Income program also includes a fourth component; multifamily, which includes institutional housing and emergency shelters. The multifamily component is delivered by an implementation contractor in cooperation with IPL and Black Hills. Participants in the multifamily component may be served on residential rates, nonresidential rates or a combination of both. Therefore, expenditures on the multifamily component will be tracked in both the residential and nonresidential budgets for the program, consistent with the meter(s) at the respective participating facilities. The various components of this program are described below.

Weatherization

In this component, MidAmerican provides funding to supplement the IDHR's existing low-income weatherization program funded by the Federal Weatherization Assistance Program (WAP). Weatherization services include energy assessments and direct installation of energy efficiency measures and are delivered by CAP agencies throughout MidAmerican's service area.

Additionally, MidAmerican will work with Green Iowa AmeriCorps (GIAC) in the communities in which GIAC operates to develop a supplemental weatherization program for customers on CAP agency waiting lists in those communities.

Energy Wise Education

In this component, CAP agencies provide low-income clients with educational workshops and low-cost energy efficiency measures for self-installation. This program is delivered to the CAP agencies by a program implementation contractor.

Home Energy Reports

With this component, MidAmerican will send Home Energy Reports to approximately 20,000 Low Income Home Energy Assistance Program (LIHEAP) eligible customers. The reports will be tailored to include low-cost and no cost energy efficiency tips.

Multifamily

This component targets existing eligible low-income multifamily housing, including institutional housing and emergency shelters for energy assessments, provision of low-cost measures for self-installation by property owners or managers and rebates for larger energy efficiency measures.

Measure List

The Low Income program provides rebates and incentives for the following measures:

- Energy-efficient showerheads
- Faucet aerators
- Pipe insulation
- Compact fluorescent light bulbs
- Programmable thermostats
- High-efficiency natural gas furnaces
- Appliances: refrigerators and freezers
- Clean and tune natural gas furnaces
- Infiltration measures
- Insulation measures
- General repairs in support of successful application of efficiency measures
- Energy Wise Home Savings Kits
- Custom measures and projects for multifamily facilities based on assessment findings and recommendations

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Low Income program is as follows:

Residential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 288,607	$ 745,470	$ 1,034,077
2015	$ 295,822	$ 696,356	$ 992,178
2016	$ 303,218	$ 703,661	$ 1,006,879
2017	$ 310,798	$ 705,342	$ 1,016,140
2018	$ 318,568	$ 705,458	$ 1,024,026
Total	$ 1,517,013	$ 3,556,287	$ 5,073,300

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 288,607	$ 2,634,157	$ 2,922,764
2015	$ 295,822	$ 2,614,246	$ 2,910,068
2016	$ 303,218	$ 2,610,746	$ 2,913,964
2017	$ 310,798	$ 2,610,070	$ 2,920,868
2018	$ 318,568	$ 2,613,849	$ 2,932,417
Total	$ 1,517,013	$ 13,083,068	$ 14,600,081

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 577,214	$ 3,379,627	$ 3,956,841
2015	$ 591,644	$ 3,310,602	$ 3,902,246
2016	$ 606,436	$ 3,314,407	$ 3,920,843
2017	$ 621,596	$ 3,315,412	$ 3,937,008
2018	$ 637,136	$ 3,319,307	$ 3,956,443
Total	$ 3,034,026	$ 16,639,355	$ 19,673,381

Nonresidential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 3,769	$ 28,102	$ 31,871
2015	$ 3,863	$ 28,241	$ 32,104
2016	$ 3,960	$ 28,253	$ 32,213
2017	$ 4,059	$ 28,300	$ 32,359
2018	$ 4,160	$ 28,049	$ 32,209
Total	$ 19,811	$ 140,945	$ 160,756

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 3,769	$ 40,992	$ 44,761
2015	$ 3,863	$ 40,853	$ 44,716
2016	$ 3,960	$ 40,841	$ 44,801
2017	$ 4,059	$ 40,794	$ 44,853
2018	$ 4,160	$ 41,045	$ 45,205
Total	$ 19,811	$ 204,525	$ 224,336

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 7,538	$ 69,094	$ 76,632
2015	$ 7,726	$ 69,094	$ 76,820
2016	$ 7,920	$ 69,094	$ 77,014
2017	$ 8,118	$ 69,094	$ 77,212
2018	$ 8,320	$ 69,094	$ 77,414
Total	$ 39,622	$ 345,470	$ 385,092

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Low- Income program are as follows:

Residential Savings

Electric Savings	Annual kWh	Peak kW
2014	3,440,569	904
2015	2,306,344	529
2016	1,286,119	192
2017	1,122,894	137
2018	1,128,669	138
Total	9,284,595	1,900

Gas Savings	Annual Therms	Peak Therms
2014	234,208	2,673
2015	188,798	2,079
2016	162,788	1,737
2017	169,978	1,826
2018	170,368	1,827
Total	926,140	10,142

Nonresidential Savings

Electric Savings	Annual kWh	Peak kW
2014	10,821	4
2015	10,821	4
2016	10,821	4
2017	10,821	4
2018	10,821	4
Total	54,104	20

Gas Savings	Annual Therms	Peak Therms
2014	3,274	22
2015	3,274	22
2016	3,274	22
2017	3,274	22
2018	3,274	22
Total	16,372	111

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 3,284,910	$ 10,088,950	$ 13,373,861
Program Costs	$ 4,840,936	$ 13,930,888	$ 18,771,824
Net Economic Benefits	$ (1,556,025)	$ (3,841,938)	$ (5,397,963)
Societal Test Ratio	0.68	0.72	0.71

Nonresidential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 115,709	$ 436,925	$ 552,634
Program Costs	$ 153,374	$ 214,041	$ 367,415
Net Economic Benefits	$ (37,665)	$ 222,884	$ 185,219
Societal Test Ratio	0.75	2.04	1.50

Operations

Description of Operations

MidAmerican provides a comprehensive program designed to reach low-income customers in a variety of situations. MidAmerican assists qualified LIHEAP residential customers by providing funds for assessments and weatherization assistance for occupants of single-family dwellings, education and low-cost efficiency measures for apartment dwellers and Home Energy Reports with no-cost and low-cost energy-saving tips and information to a cross-section of low-income customers. Free assessments and low-cost energy savings measures are provided to qualified multifamily low-income housing, which includes low-income and institutional housing and emergency shelters. These multifamily customers are also eligible for rebates to assist with energy efficiency projects.

Each component of the program employs a different implementation strategy, as outlined below.

Weatherization

Implementation is delivered through local CAP agencies responsible for promotion, qualification, assessments and installations, administration, data tracking and support of program-wide evaluation efforts.

Key steps in the weatherization component include:

- **Determine eligibility** – Identifying customers that qualify for LIHEAP and prioritizing them according to utility bills, income level and other criteria.
- **Complete on-site assessments** – Completing on-site energy assessments, during which auditors directly install simple energy efficiency measures and evaluate eligibility for a

predetermined list of more complex measures, such as building insulation and replacement of furnaces, water heaters and appliances.
- **Install measures** – Coordinating, where appropriate, with network contractors for measure installation.
- **Document results** – Documenting program results for IDHR and MidAmerican.

Energy Wise

This component is coordinated by local CAP agencies for implementation.

Key steps in the Energy Wise component include:

- **Train the trainers** – Recruiting participants for energy efficiency train the trainer (T3) training, which provides trainers with tools to introduce energy education and low-cost energy efficiency measures to eligible customers.
- **Distribute kits** – Distribution of Energy Wise kits containing low-cost energy efficiency measures to CAP agencies for redistribution to Energy Wise participants.
- **Deliver program** – Outreach to qualified CAP agency clients by Energy Wise trainers, either in classrooms or one-on-one settings, during which trainers discuss installation of energy efficiency measures as well as energy-saving techniques and behaviors.
- **Install measures** – Self-installation by the participants of the kit measures and adoption of other energy-saving behaviors by Energy Wise participants.
- **Report results** – Reporting on pre-installation energy usage and success installing the various measures to support program-wide evaluation efforts.

Home Energy Reports

The operations of this component are detailed in the Residential Behavioral report. Home Energy Reports for the Low Income program will operate identically to those in the Residential Behavioral program with the following two exceptions:

- **Tailored tips** – The tips found in the reports will be tailored for low income participants.
- **Provide data** – MidAmerican will provide a supplemental data feed to the implementation contractor listing all Iowa customers that qualified for LIHEAP assistance so the implementation contractor can choose 20,000 participants and a suitable control group for the required statistical comparisons.

Multifamily

The multifamily component targets existing low-income housing, institutional housing and emergency shelters. This component provides energy assessments, low-cost measures for installation by building owners and incentives for more complex measures identified during the assessments. Pre-qualification of participants is conducted based on eligibility for program assistance. A multifamily property must be housing developed under Section 8 of the U.S. Housing Act of 1937 or Low-Income Housing Tax Credit Property under the Tax Reform Act of 1986 to be eligible. Participants in the multifamily component may be served on residential rates, nonresidential rates or a combination of both. Participants generally are property management companies or multifamily housing property owners.

Key steps in the multifamily component include:

- **Contact customers** – Contacting qualifying customers to discuss the program and its benefits and requirements.
- **Schedule assessment** – Scheduling energy assessments for customers interested in participating.
- **Complete assessment** – Completing on-site assessments, during which auditors evaluate measures eligible for rebates.
- **Provide low-cost measures** – Providing low-cost measures for self-installation in individual units.
- **Review report recommendations** – Providing an assessment report, which recommends cost-effective measures, such as improvements to the building shell, central heating and cooling equipment and lighting, in common areas and in tenant-occupied space.
- **Work with contractors** – Coordinating, where appropriate, with contractors for measure installation.
- **Process rebates** – Processing rebate applications and issuing rebates from MidAmerican.
- **Verify measures** – Verifying measure installation for a sample of participants.

Description of Outside Services

MidAmerican energy efficiency staff provide overall strategic direction for the program and – supported by additional contractors – research and development, promotion, trade ally support, evaluation and other administrative functions.

Local CAP agencies are responsible for qualifying single-family households for the program when they apply for Federal LIHEAP assistance and for delivering services to LIHEAP-eligible customers. Additionally, other implementation contractors support the program and deliver program services.

Additionally, MidAmerican will work with Green Iowa AmeriCorps (GIAC) in the communities in which GIAC operates, to develop a supplemental weatherization program for customers on Community Action Program (CAP) agency waiting lists in those communities.

The IDHR submits monthly reports to MidAmerican outlining participation levels and installed measures for the weatherization component. Each year, the IDHR, through a contractor retained by IDHR and the investor-owned utilities, submits an annual Statewide Low-Income Collaborative Evaluation (SLICE) report detailing program expenditures and savings of the weatherization component.

MidAmerican currently contracts with the Iowa Department of Human Rights, The Cadmus Group, Inc., The Energy Group, Inc., Dalhoff Associates, and Opower, Inc. for administration and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive four main benefits:

- Trustworthy energy-savings recommendations from trained auditors.
- Immediate savings through the direct installation of low-cost lighting, water heating and other energy-saving measures.
- Additional savings through the beneficial educational aspects of Energy Wise and Home Energy Reports.
- Significant savings, increased comfort and increased property values through rebates on insulation, lighting and other efficiency projects.

Market Barriers

The table below presents the key market barriers to an effective low-income program, and strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Higher initial cost of energy-efficient equipment	Provide direct installation of low-cost measures Provide free Energy Wise kits Provide free weatherization and equipment measures Offer rebates and financing to multifamily building owners Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Lack of customer awareness	Provide customer marketing and outreach Provide efficiency and energy usage education Provide free Home Energy Reports Provide free energy assessments
Customers reluctant to ask for help	Work through CAP agencies, which have existing relationships with customers Provide confidential program qualification and implementation process

Incentives

The program offers participants the following types of financial incentives.

- **Free energy assessments** – Free energy assessments are provided for customers participating in the weatherization and multifamily components.
- **Full subsidies** – Full subsidies are offered for most low-cost measures directly installed during the assessment and for higher cost energy efficiency measures specified during weatherization assessments. Likewise, training and home energy kits provided to Energy Wise participants are fully subsidized.
- **Home Energy Reports** – Home Energy Reports are provided free of charge. This strategy is intended to fully overcome market barriers concerning cost, perceived quality and the time and effort required for installation as well as to address behavioral issues regarding participants' energy use.
- **Rebates** – Rebates are offered for participants in the multifamily component and are set at 40 percent of the installed cost of cost-effective measures specified during the on-site energy assessment. In the multifamily component, MidAmerican defines cost-effective measures as those having a customer payback that is shorter than the expected lifetime of the measure. For measures identified during the on-site energy assessment that do not meet this definition of cost-effectiveness, MidAmerican provides a rebate that is five times the annual energy bill savings.

The table below outlines the current schedule used to reimburse the IDHR and participating CAP agencies for program measures. The reimbursement limit is intended to cover 100 percent of the costs required to install eligible measures and also to cover the administrative costs required by the IDHR and the agencies to operate the program. This schedule will be reviewed and updated as required when MidAmerican and IDHR enter into a new weatherization agreement for the years 2014-2018.

Iowa Reimbursement Limits for Low-Income Measures

Measure	Minimum Efficiency Level and Performance Criteria (if applicable)	Reimbursement Limit
Low-flow showerheads	2.0 GPM – max 2 per house	$10 each
Faucet aerators	1.5 GPM Brass with chrome finish – max 3 per house	$3 each
Pipe insulation	Rigid 0.5" foam with 0.75" diameter – max 2 3-foot sections per house	$3 each
Compact fluorescent light bulbs	5 to 30 watts ENERGY STAR®-labeled – max 2 per house	$15 each
3-way compact fluorescent light bulbs	5 to 30 watts ENERGY STAR-labeled	$10 each
Programmable thermostat	Must be 7-day, 5 + 2 day or 5-1-1 day program	$100
High-efficiency furnace	92+% AFUE in single-family homes or 90+% AFUE in mobile homes – max 1 per house	$3,000
Natural gas water heater	0.62 EF – max 1 per house	$1,300
Electric water heater	Where no gas service or it is infeasible to install gas water heater – 0.89 EF – max 1 per house	$1,000
Venting for furnace or water Heater		$150 each
Refrigerator	Replacement is indicated based on baseload appliance rating tool (BART) test – max 1 per house	$800
Freezer	Replacement is indicated based on BART test – max 1 per house	$600
Clean and tune natural gas furnace	May be performed on 1 existing natural gas furnace per house, regardless of efficiency	$125
Infiltration measures	Caulking and sealing of whole house as indicated by initial assessment including attic bypass sealing	$400
Insulation measures	Includes wall, attic, floor or foundation, duct and band joist insulation or a combination thereof*	$4,000
General repairs	In support of successful application of efficiency measures	$300

* CAPs may request a waiver when home size requires additional insulation to achieve the required goal.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

All marketing and outreach for MidAmerican's single-family low-income components is performed by the CAP agencies using their existing network and infrastructure, supported by MidAmerican's general awareness advertising. All marketing and outreach for MidAmerican's multifamily low-income program is performed by the implementation contractor retained by the investor-owned utilities. The Energy Wise implementation contractor works with the CAP agencies to determine the required number of Energy Wise Home Savings Kits and endeavors to increase utilization. Home Energy Reports participants are selected by the implementation contractor.

Customer Targets

This program is available to qualified low-income customers in existing single-family housing as well as property management companies and landlords serving customers in existing qualifying low-income multifamily housing, institutional housing and emergency shelters. Program measures must save energy supplied directly by MidAmerican. To participate in the program, customers must meet income and other guidelines of the Federal LIHEAP, U.S. Department of Housing and Urban Development or equivalent assistance programs.

The table below outlines customer eligibility requirements for equipment-components of the program.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Residential electric rate or commercial (for multifamily) electric rate	Residential natural gas rate or commercial (for multifamily) natural gas rate
Customer Status	Customer homeowners; Property managers or landlords of customers	Customer homeowners; Property managers or landlords of customers
Building Type	Single-family; Mobile home; Multifamily	Single-family; Mobile home; Multifamily
Building Vintage	Existing construction	Existing construction
Geography	MidAmerican Iowa electric service territory*	MidAmerican Iowa natural gas service territory*

The table below outlines customer eligibility requirements for educational components of the program.

Customer Eligibility Parameters

	Energy Wise	Home Energy Reports
Customer Class	Residential electric rate or residential natural gas rate	Residential electric rate and residential natural gas rate
Customer Status	Eligible for LIHEAP	Eligible for LIHEAP
Building Type	No restrictions	No restrictions
Building Vintage	Existing construction	Existing construction
Geography	MidAmerican Iowa electric or natural gas service territory*	MidAmerican Iowa electric or natural gas service territory

*When possible, MidAmerican will coordinate with other participating utilities in a joint effort.

Trade Ally Targets

Most of the trade allies needed to support the weatherization component work as subcontractors to the CAP agencies responsible for program administration. Additionally, HVAC contractors and appliance dealers provide replacement equipment for qualifying participants.

Trade allies supporting the multifamily component include:

- Insulation installers
- Window retailers and installers
- HVAC dealers and installers
- Lighting dealers and installers

To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

All marketing and outreach for MidAmerican's single-family weatherization component is performed by the CAP agencies using their existing network and infrastructure, supported by MidAmerican's general awareness advertising. All marketing and outreach for the Energy Wise component is performed by the CAP agencies and the implementation contractor. No marketing is required for the Home Energy Report component as participants are selected by the implementation contractor. All marketing and outreach for MidAmerican's multifamily low-income program is performed by the implementation contractor retained by the investor-owned utilities.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Multifamily Housing Program

Description of Program

The Multifamily Housing program provides services and incentives to serve the specific needs of multifamily housing building owners and property managers to help improve the overall energy efficiency of their facilities and reduce the operating costs. The program provides comprehensive on-site energy assessments to identify areas of high energy use, recommend energy-savings opportunities, and provide information on available incentives. A comprehensive assessment report includes recommendations for multifamily housing buildings. The program promotes the purchase of high-efficiency equipment through prescriptive and custom incentives.

The on-site assessment is available to owners of multifamily buildings that contain four or more units that receive electricity and/or natural gas supplied directly from MidAmerican.

Transportation gas customers with daily metering are ineligible for gas measures. However, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Measure List

The Multifamily Housing program provides rebates and incentives for the following measures:

Direct install measures

- Compact fluorescent lamps
- Low-flow showerheads
- Bathroom and kitchen faucet aerators
- LED exit light kits

Any prescriptive or cost effective custom energy efficiency measure is potentially eligible for rebate under the Multifamily Housing program. Typical measures include:

- Heating and cooling equipment
- Water heating equipment
- Appliances – clothes washers, freezers and refrigerators
- Common area lighting
- Insulation – wall and attic/roof/ceiling

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

MidAmerican performs an annual review of qualifying equipment and may adjust direct install measures, follow-up measures and eligibility levels in the future as market conditions and equipment standards change.

Budgets

Anticipated five-year spending for the Multifamily Housing program is as follows:

Residential Spending

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 112,470	$ 3,160,476	$ 3,272,946
2015	$ 115,282	$ 3,741,096	$ 3,856,378
2016	$ 118,164	$ 4,330,854	$ 4,449,018
2017	$ 121,118	$ 4,932,063	$ 5,053,181
2018	$ 124,146	$ 5,540,752	$ 5,664,898
Total	$ 591,180	$ 21,705,242	$ 22,296,422

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 168,706	$ 255,774	$ 424,480
2015	$ 172,924	$ 307,611	$ 480,535
2016	$ 177,247	$ 361,007	$ 538,254
2017	$ 181,678	$ 417,028	$ 598,706
2018	$ 186,220	$ 476,125	$ 662,345
Total	$ 886,775	$ 1,817,545	$ 2,704,320

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 281,176	$ 3,416,251	$ 3,697,427
2015	$ 288,206	$ 4,048,707	$ 4,336,913
2016	$ 295,411	$ 4,691,862	$ 4,987,273
2017	$ 302,796	$ 5,349,091	$ 5,651,887
2018	$ 310,366	$ 6,016,877	$ 6,327,243
Total	$ 1,477,955	$ 23,522,787	$ 25,000,742

Nonresidential Spending

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 18,124	$ 1,480,244	$ 1,498,368
2015	$ 18,577	$ 1,744,499	$ 1,763,076
2016	$ 19,041	$ 2,016,326	$ 2,035,367
2017	$ 19,517	$ 2,289,102	$ 2,308,619
2018	$ 20,005	$ 2,553,437	$ 2,573,442
Total	$ 95,264	$ 10,083,608	$ 10,178,872

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 42,289	$ 981,206	$ 1,023,495
2015	$ 43,346	$ 1,164,084	$ 1,207,430
2016	$ 44,430	$ 1,356,614	$ 1,401,044
2017	$ 45,541	$ 1,553,154	$ 1,598,695
2018	$ 46,680	$ 1,763,272	$ 1,809,952
Total	$ 222,286	$ 6,818,329	$ 7,040,615

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 60,413	$ 2,461,450	$ 2,521,863
2015	$ 61,923	$ 2,908,583	$ 2,970,506
2016	$ 63,471	$ 3,372,940	$ 3,436,411
2017	$ 65,058	$ 3,842,256	$ 3,907,314
2018	$ 66,685	$ 4,316,709	$ 4,383,394
Total	$ 317,550	$ 16,901,938	$ 17,219,488

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Multifamily Housing program are as follows:

Residential Savings

Electric Savings	Annual kWh	Peak kW
2014	7,323,986	1,093
2015	8,597,644	1,283
2016	9,870,465	1,472
2017	11,147,563	1,663
2018	12,416,704	1,852
Total	49,356,362	7,363

Gas Savings	Annual Therms	Peak Therms
2014	98,401	311
2015	115,532	364
2016	132,428	416
2017	149,401	468
2018	166,473	521
Total	662,235	2,080

Nonresidential Savings

Electric Savings	Annual kWh	Peak kW
2014	1,340,652	354
2015	1,569,669	415
2016	1,807,769	477
2017	2,039,795	540
2018	2,275,143	602
Total	9,033,029	2,387

Gas Savings	Annual Therms	Peak Therms
2014	184,235	1,216
2015	216,512	1,431
2016	248,567	1,642
2017	281,090	1,859
2018	313,629	2,077
Total	1,244,033	8,225

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 44,193,072	$ 22,452,347	$ 66,645,419
Program Costs	$ 23,893,101	$ 2,588,873	$ 26,481,974
Net Economic Benefits	$ 20,299,971	$ 19,863,475	$ 40,163,446
Societal Test Ratio	1.85	8.67	2.52

Nonresidential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 13,438,411	$ 33,534,649	$ 46,973,060
Program Costs	$ 11,430,192	$ 7,663,184	$ 19,093,376
Net Economic Benefits	$ 2,008,219	$ 25,871,465	$ 27,879,684
Societal Test Ratio	1.18	4.38	2.46

Operations

Description of Operations

MidAmerican provides free on-site energy assessments and direct install measures to requesting multifamily housing building owners and managers. Energy assessments are performed by a program contractor with expertise in building envelope, common area energy-using equipment, and energy use within the apartments themselves. Recommendations and energy efficiency program information are provided to assist property owners in completing projects and obtaining available prescriptive and custom incentives.

Key steps in program participation include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.

- **Assessment screening** – The program contractor screens the caller to determine the number of units or buildings in a complex; type of building (e.g. apartments, condominiums, mixed-use); central or individual heating and cooling systems; any specialized commercial equipment; and residential or commercial utility meter(s).
- **On-site assessment completion** – The program contractor performs a walkthrough energy assessment to visually inspect energy-using equipment, informs building owners of ways to operate building energy systems more efficiently, reviews energy usage and cost patterns found in historic energy bills, evaluates eligibility for financial incentives for additional measures, and provides contact information as well as information regarding how to participate in MidAmerican's other energy efficiency programs.
- **Direct-install measures** – Either during the multifamily housing assessment or scheduled shortly thereafter, the program contractor installs energy saving measures within the apartment units. Such measures may include LED exit light kits, compact fluorescent lamps, low-flow shower heads, and faucet aerators.
- **Assessment report** – The program contractor provides the building owner an assessment report that includes recommendations for energy efficiency projects. The report also provides website addresses for additional rebate information and applications. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.
- **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of measure installations.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development and provides promotion, trade ally support, evaluation and other administrative functions.

MidAmerican uses two program contractors to help deliver the program. One contractor handles program enrollment and data tracking, and works directly with customers to conduct the on-site energy assessments. The other contractor handles associated rebate processing for recommended measures that are installed following an assessment.

MidAmerican currently employs Franklin Energy Services LLC and A-TEC Energy Corporation for administrative and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Building owners participating in the program receive the following main benefits:

- Building owners receive trustworthy energy-savings recommendations from trained energy auditors.
- Building owners save money in the short term through rebates and financing and in the long term through lower utility bills.

- End-use customers (tenants) save instantly as a result of the direct install measures in each unit installed either during or shortly after the assessment.
- Building owners generally have a higher occupancy rate due to tenants with lower monthly energy bills. Apartments with low monthly energy costs are looked at favorably by prospective tenants. Existing tenants are more likely to stay in units with low energy costs.

Market Barriers

The table below presents the key market barriers to a successful multifamily program and strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
High incremental cost of efficient equipment	Offer rebates set at levels to help offset costs Offer support to obtain discounted financing Educate building owners regarding the benefits of higher efficiency equipment
Limited time and information to consider efficiency in emergency replacement	Conduct targeted dealer outreach and training Engage in ongoing dealer communications and education Implement low-hassle program requirements
Lack of building owner and dealer awareness	Educate building owners through program promotion/advertising Use traditional and nontraditional marketing approaches Engage in ongoing dealer communication, outreach and complete dealer sales training
Building owners don't trust energy-savings calculations	Provide case studies of actual projects with energy savings where appropriate
Split incentive, i.e., rental property owners own the building but the tenants pay the bills	Provide financial incentives for energy efficiency upgrades Provide free energy assessments Educate landlords about increasing property values and greater rent ability resulting from energy upgrades Focus on both individual units and common areas

Market Barriers	Program Strategies
Energy is a small part of overall operating costs	Target new purchases and equipment replacement markets Target marketing materials and education efforts
Large amount of variation in building types and configurations	Use different delivery models to match expertise and incentives to buildings Allow program manager flexibility in defining eligibility and delivery mechanisms
Building owners often choose to use their limited resources to make capital improvements to items seen by their tenants, such as paint, floor coverings, decorations, etc.	Educate the building owner on the importance of energy related capital improvements such as ENERGY STAR listed appliances, heating and cooling improvements and efficient lighting products

Incentives

MidAmerican offers the following financial incentives to participants:

- **No cost energy assessments** – No cost energy assessments are offered to assist participants in identifying how they use energy and what actions can be taken to reduce energy use.
- **Technical assistance** – Technical assistance is provided throughout the project cycle at no cost to participants. Assistance may include expert information regarding building shell and central heating/cooling plant-specific equipment, recommendations regarding energy-saving actions, estimates of energy-saving potential, general cost estimates for recommended actions, and trade ally identification.
- **Rebates** – Rebates are offered to help offset the cost to purchase and install energy efficient equipment. Rebates may be identical to prescriptive offerings under MidAmerican's Residential and Nonresidential Equipment programs. For some equipment types, the program may provide bonus rebates for multiple projects.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

New Construction/Renovation

For construction of new condominiums and apartments of three or less stories, the Residential New Construction program can provide incentives based on the energy saving strategies incorporated in the building. For renovation of existing buildings converted to apartments or condominiums, as well as construction of new multifamily housing facilities of four or more stories, MidAmerican's Commercial New Construction program can provide incentives based on the energy savings strategies chosen.

Marketing Plan

General Marketing Plan

MidAmerican will target multifamily building owners using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and industry organizations, to encourage building owner participation and implementation of energy efficient measures and equipment. MidAmerican will focus on landlord associations by attending their trade shows, educational seminars and lunch and learn meetings to make them aware of the program offerings. Building owners have direct access to MidAmerican staff and/or their implementation contractors to answer questions.

MidAmerican will continue to monitor for opportunities to include rating options and efficiency designation for building participation in this program.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjusts materials as needed based on program adjustments and market characteristics.

Customer Targets

This program targets all multifamily housing building owners of four or more tenant-occupied residential apartments or condominiums. Townhomes and buildings with three or fewer residential living units are directed to MidAmerican's Residential Assessment program. To qualify for a multifamily housing assessment, the structure must be at least ten years old. Multifamily complexes serving low-income customers will be served by the multifamily component of the Low-Income program.

Customer eligibility requirements are outlined in the table below.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Residential or nonresidential electric rate or a combination	Residential or nonresidential natural gas rate schedules Gas transportation tariff rate customers with daily metering are ineligible
Customer Status	Building owners; property managers; tenants	Building owners; property managers; tenants
Business Type	Multifamily housing (e.g. apartment buildings, condominiums, mixed-use)	Multifamily housing (e.g. apartment buildings, condominiums, mixed-use)
Geography	MidAmerican Iowa electric service territory	MidAmerican Iowa natural gas service territory
Size	Four or more residential living units	Four or more residential living units

Trade Ally Targets

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Heating, ventilating and cooling dealers/contractors
- Water heating dealers/contractors
- Lighting dealers/contractors
- Building shell (insulation, efficient windows/doors) dealers/contractors
- Appliance dealers
- Large multifamily property owners
- Property management companies
- Homeowner associations of condominium style buildings

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will engage in a multifaceted promotional strategy, including:

- A dedicated brochure that outlines the program's features, benefits, eligibility requirements and financial incentives.
- Outreach and educational opportunities for trade allies, multifamily housing associations and support organizations.
- Attendance, material distribution, and presentations at multifamily housing events, trade shows and educational events across the state.
- Targeted advertisements in industry trade publications.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter that is sent with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website that will appear periodically on customer bills and in the electronic newsletter.
- A direct marketing campaign by multifamily housing specific segments with industry-specific information through direct mail, phone calls or emails to encourage participation. This includes face to face meetings with owners of large multifamily housing properties to promote the program.

Program referrals also are expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Agriculture Program

Description of Program

The Agriculture program provides services and incentives to serve the specific needs of the agricultural sector to help customers improve the overall energy efficiency of their facilities and reduce their operating costs. The program provides comprehensive on-site energy assessments to identify areas of high energy use, recommend energy-savings opportunities, and provide information on available incentives. A comprehensive assessment report includes recommendations for farm-industry buildings and operations. The program promotes the purchase of high-efficiency equipment by agricultural customers through prescriptive and custom incentives.

The on-site assessment is available to agribusiness customers that receive electricity and/or natural gas supplied directly from MidAmerican.

Transportation gas customers with daily metering are ineligible for gas measures. However, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Measure List

The Agriculture program provides rebates and incentives for the following measures:

Direct Install Measures

- Compact fluorescent lamps – exterior

Any prescriptive or cost effective custom energy efficiency measure is potentially eligible for rebate under the Agriculture program. Typical measures include:

- Variable speed drives
- T-8 and T-5 fluorescent high bay lighting systems
- Occupancy sensors
- Pulse start metal halide fixtures

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

MidAmerican performs an annual review of qualifying equipment and may adjust direct install measures, follow-up measures and eligibility levels in the future as market conditions and equipment standards change.

Budgets

Anticipated five-year spending for the Agriculture program is as follows:

Residential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 24,327	$ 40,449	$ 64,776
2015	$ 24,935	$ 40,825	$ 65,760
2016	$ 25,558	$ 41,211	$ 66,769
2017	$ 26,197	$ 41,607	$ 67,804
2018	$ 26,852	$ 42,012	$ 68,864
Total	$ 127,869	$ 206,104	$ 333,973

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 2,703	$ 2,946	$ 5,649
2015	$ 2,771	$ 2,987	$ 5,758
2016	$ 2,840	$ 3,029	$ 5,869
2017	$ 2,911	$ 3,073	$ 5,984
2018	$ 2,984	$ 3,117	$ 6,101
Total	$ 14,209	$ 15,151	$ 29,360

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 27,030	$ 43,394	$ 70,424
2015	$ 27,706	$ 43,812	$ 71,518
2016	$ 28,398	$ 44,240	$ 72,638
2017	$ 29,108	$ 44,679	$ 73,787
2018	$ 29,836	$ 45,129	$ 74,965
Total	$ 142,078	$ 221,256	$ 363,334

Nonresidential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 49,817	$ 36,782	$ 86,599
2015	$ 51,062	$ 37,291	$ 88,353
2016	$ 52,339	$ 37,813	$ 90,152
2017	$ 53,647	$ 38,348	$ 91,995
2018	$ 54,988	$ 38,896	$ 93,884
Total	$ 261,853	$ 189,130	$ 450,983

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 5,535	$ 40,550	$ 46,085
2015	$ 5,673	$ 41,035	$ 46,708
2016	$ 5,815	$ 41,533	$ 47,348
2017	$ 5,960	$ 42,043	$ 48,003
2018	$ 6,109	$ 42,566	$ 48,675
Total	$ 29,092	$ 207,728	$ 236,820

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 55,352	$ 77,332	$ 132,684
2015	$ 56,735	$ 78,326	$ 135,061
2016	$ 58,154	$ 79,346	$ 137,500
2017	$ 59,607	$ 80,391	$ 139,998
2018	$ 61,097	$ 81,463	$ 142,560
Total	$ 290,945	$ 396,858	$ 687,803

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

Anticipated savings levels for the Agriculture program are as follows:

Residential Savings

Electric Savings	Annual kWh	Peak kW
2014	156,352	19
2015	156,352	19
2016	152,930	18
2017	152,930	18
2018	152,930	18
Total	771,493	92

Gas Savings	Annual Therms	Peak Therms
2014	1,100	14
2015	1,100	14
2016	1,100	14
2017	1,100	14
2018	1,100	14
Total	5,500	72

Nonresidential Savings

Electric Savings	Annual kWh	Peak kW
2014	183,487	28
2015	183,487	28
2016	167,659	25
2017	167,659	25
2018	167,659	25
Total	869,951	131

Gas Savings	Annual Therms	Peak Therms
2014	6,500	-
2015	6,500	-
2016	6,500	-
2017	6,500	-
2018	6,500	-
Total	32,500	-

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 634,246	$ 77,624	$ 711,870
Program Costs	$ 420,411	$ 45,669	$ 466,080
Net Economic Benefits	$ 213,835	$ 31,955	$ 245,790
Societal Test Ratio	1.51	1.70	1.53

Nonresidential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ 670,594	$ 594,880	$ 1,265,473
Program Costs	$ 482,529	$ 363,589	$ 846,118
Net Economic Benefits	$ 188,065	$ 231,290	$ 419,355
Societal Test Ratio	1.39	1.64	1.50

Operations

Description of Operations

MidAmerican provides free on-site energy assessments to requesting agribusiness customers. Energy assessments are performed by a program contractor with expertise in building envelope, energy-using equipment, and specialized farm equipment. Recommendations and energy efficiency program information are provided to assist customers in completing projects and obtaining available prescriptive and custom incentives.

Key steps in program participation include:

- **On-site assessment scheduling** – The customer calls the program contractor to schedule an assessment, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an assessment.
- **On-site assessment completion** – The program contractor performs a walkthrough energy assessment to visually inspect energy-using equipment, informs customers of ways to

operate building energy systems more efficiently, reviews energy usage and cost patterns found in historic energy bills, evaluates eligibility for financial incentives for additional measures, and provides contact information as well as information regarding how to participate in MidAmerican's other energy efficiency programs.

- **Assessment report** – The program contractor provides the agribusiness owner an assessment report that includes recommendations for energy efficiency projects appropriate for agribusiness customers. The report also provides website addresses to easily access additional rebate information and application forms. During program design, appropriate timelines for report delivery will be established to ensure adequate analysis and timeliness to the customer.
- **Rebate application** – When a customer completes a prescriptive or custom project as a result of their assessment, they submit an application form for review and processing.
- **Rebate processing and database maintenance** – The program contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- **Verification** – The program contractor conducts verification on a sample of measure installations.

Description of Outside Services

MidAmerican staff provides overall strategic direction for the program, conducts research and development, and provides promotion, trade ally support, evaluation and other administrative functions.

MidAmerican uses two program contractors to help deliver the program. One contractor handles program enrollment and data tracking, and works directly with customers to conduct the on-site energy assessments. The other contractor handles associated rebate processing for recommended measures that are installed following an assessment.

MidAmerican currently contracts with Franklin Energy Services LLC and A-TEC Energy Corporation for administrative and evaluation services. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

Customers participating in the program receive three main benefits:

- Financial benefits in the form of the free energy assessment, rebates that reduce the payback of implemented energy efficiency measures, energy savings for the lifetime of the installed measures, and potentially increased property values.
- Confidence in investment decision due to trustworthy energy-savings recommendations from trained energy auditors.
- Potential increase in customer product capacity and profits from installing equipment upgrades.

Market Barriers

The table below presents the key market barriers to a successful agriculture program and the strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
High incremental cost of efficient equipment	Offer rebates set at levels to help offset costs Offer support to obtain discounted financing Educate consumers regarding the benefits of higher efficiency equipment
Limited time and information to consider efficiency in emergency replacement	Conduct targeted dealer outreach and training Engage in ongoing dealer communications and education Implement low-hassle program requirements
Lack of customer and dealer awareness	Educate customers through program promotion/advertising Use traditional and nontraditional marketing approaches Engage in ongoing dealer communication, outreach and complete dealer sales training
Customers don't trust energy-savings calculations	Provide case studies of actual projects with energy savings where appropriate
Disruptions to business due to seasonal business cycle	Focus installation efforts during off-season periods
Energy is a small part of overall operating costs	Target new purchases and equipment replacement markets Targeted marketing materials and education efforts
Agriculture sector equipment is highly industrial and site-specific and does not readily fit into prescriptive rebate programs	Offer a combination of prescriptive and custom incentives Support leveraging additional funds through the Farm Bill and other programs
Agricultural equipment may be used heavily during short time periods (e.g., during harvest) and therefore does not always fit into incremental cost versus savings eligibility criteria	Offer a combination of prescriptive and custom incentives Support leveraging additional funds through the Farm Bill and other programs

Incentives

MidAmerican offers the following financial incentives to participants:

- **No cost energy assessments** – No cost energy assessments are offered to assist participants in identifying how they use energy and what actions can be taken to reduce energy use.
- **Technical assistance** – Technical assistance is provided throughout the project cycle at no cost to participants. Assistance may include expert information regarding building shell and agriculture-specific equipment, recommendations regarding energy-saving actions, estimates of energy-saving potential, general cost estimates for recommended actions, and trade ally identification.
- **Equipment incentives** – Prescriptive rebates, as outlined in the Residential and Nonresidential Equipment programs, will apply to projects in the Agriculture program. However, much of the equipment specific to the agriculture industry will undergo a custom analysis to determine incentives. Custom rebates are set at 25 percent of incremental cost or an amount that buys down the project to 25 percent of its useful life, whichever is greater. Custom project rebates will be capped at a two year simple payback and cannot exceed 60 percent of the eligible project cost.
- **Enhanced incentives** – Enhanced incentives will be offered to encourage multiple projects.

MidAmerican performs an annual review of incentive levels and performance criteria and may adjust incentives in the future as market conditions change.

Detailed incentive levels for each measure offered in this program are provided in Appendix A.

Marketing Plan

General Marketing Plan

MidAmerican will target agriculture sector customers using traditional and non-traditional marketing channels, provide education and outreach to customers, trade allies and industry organizations, to encourage customer participation and implementation of energy efficient measures and equipment.

MidAmerican will regularly review and update customer-facing program information and marketing materials as part of its internal program evaluation process, and adjust materials as needed based on program adjustments and market characteristics.

Customer Targets

This program targets all agricultural sector customers, including grain, dairy, livestock and specialty industries (such as grain elevators). Since customers' farm operations buildings may be on residential and/or nonresidential tariffs, program costs and rebates will be appropriately assigned and allocated to the residential and nonresidential program components.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Electric Equipment	Natural Gas Equipment
Customer Class	Farms on residential and nonresidential electric rate schedules	Farms on residential and nonresidential natural gas rate schedules Gas transportation tariff rate customers with daily metering are ineligible
Customer Status	Customer building or business owners	Customer building or business owners
Business Type	Grain, dairy, livestock and specialty farms (such as grain elevators)	Grain, dairy, livestock and specialty farms (such as grain elevators)
Geography	MidAmerican Iowa electric territory	MidAmerican Iowa natural gas territory
Size	No customer size limitations	No customer size limitations

Trade Ally Targets

Any business that sells or installs qualifying equipment within MidAmerican's service territory may participate in the program. The following types of trade allies are predominant:

- Specialized farm equipment dealers
- Specialized farm developers/contractors
- Lighting dealers
- Motor and variable-speed drive (VSD) dealers
- HVAC contractors
- Grant writers

Trade allies play a key role in implementing the program. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican maintains an active trade ally program. Further information regarding trade allies can be found in the Education program.

Promotion

MidAmerican will engage in a multifaceted promotional strategy, including:

- Outreach and educational opportunities for trade allies, agriculture industry associations and support organizations.
- Attendance, material distribution, and presentations at industry events such as state and county fairs, farm shows, and other industry events.
- Participation in agriculture industry associations and industry support organizations.
- Targeted advertisements in industry trade publications.
- Periodic articles in MidAmerican's monthly electronic newsletter as well as its quarterly newsletter that is sent with customer bills.
- A dedicated Web page that includes program information and qualification requirements and a program brochure.
- A reference to the energy efficiency website will appear periodically on customer bills and in the electronic newsletter.
- A direct marketing campaign by targeting specific agriculture segments with industry-specific information through direct mail, phone calls or emails to encourage participation.

Program referrals also are expected from trade allies. Information will be available on a dedicated portion of the energy efficiency website to assist trade allies in marketing and delivering energy-efficient products and services to customers, while encouraging participation in energy efficiency programs. The website offers trade allies the opportunity to order program materials, learn about program changes, and provide contact information for future communications. To keep trade allies informed and engaged with the program, MidAmerican will periodically provide program information and training via a variety of different communication modes to create overarching energy efficiency and program awareness among our customers and trade allies. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Education Program

Description of Program

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

Training

In this area, MidAmerican sponsors or provides training programs for customers and trade allies to increase their knowledge of specific energy efficiency areas and systems. Participants in these training programs may receive certification to document participation. MidAmerican will work to increase available training opportunities by sponsoring and promoting training programs that are delivered by third-party providers. MidAmerican also will offer some training programs in coordination with other utilities. Examples of training programs MidAmerican has offered in the past are found below.

- HVAC System Adjustment & Verified Efficiency (SAVE) training has been offered to HVAC contractors based on National Comfort Institute curricula in cooperation with other Iowa utilities, the Iowa Energy Center and the Midwest Energy Efficiency Alliance.
- The Department of Energy's Compressed Air Challenge training program has been offered in cooperation with members of the Partnership for Industrial Energy Efficiency (PIE^2).
- Steam system training has been offered in cooperation with PIE^2.
- MidAmerican has offered a Motors Systems Management seminar which offered training on motors and variable speed drives.
- MidAmerican has offered a LED lighting seminar targeted to municipal and nonresidential customers.
- Building Operator Certification (BOC) training has been offered to customers in cooperation with the other Iowa utilities and the Midwest Energy Efficiency Alliance.

In this energy efficiency plan, MidAmerican will:

- Expand its training offerings by identifying and developing new programs to target additional customer and trade ally segments.
- Increase direct outreach to business associations to better identify training and educational opportunities that would benefit their membership groups.
- Identify areas where training can help improve the performance of energy efficiency programs.
- Indentify new areas where training can help customers save energy and money <u>including working with Green Iowa AmeriCorps to expand local community initiatives.</u>
- <u>Identify other community based and third party opportunities through existing programs and may develop stand-alone pilots.</u>

School Curriculum

With these activities, MidAmerican works with schools to integrate energy efficiency education into curriculum and extracurricular activities. In the past, MidAmerican has offered a curriculum called *e-SMARTkids* to elementary and some middle school teachers throughout its service territory. MidAmerican will continue to offer *e-SMARTkids* on its website and provide five different energy efficiency curriculum booklets along with comprehensive teacher's guides to schools in its Iowa service territory.

Additionally, MidAmerican will continue its partnership with the Science Center of Iowa to bring *Simply Electrifying* assembly programs to elementary students in MidAmerican's Iowa service territory on a four-year cycle. *Simply Electrifying* reinforces National Science Standards and provides electric safety and energy efficiency information to students.

MidAmerican will look for opportunities to support energy efficiency education in other grade levels and in higher education, including science fair projects, school contests and similar activities. MidAmerican will investigate the feasibility of offering additional curriculum materials for grades 7 through 9.

Awareness

In this area, MidAmerican engages in a number of activities to increase awareness of energy efficiency in general and in the Company's programs in particular. Current offerings in this area include:

- Mass media advertising featuring MidAmerican's "*Power in your hands"* campaign.
- MidAmerican's energy efficiency website.
- Outreach at events such as the Iowa State Fair, community events, home and trade shows.
- Sponsorship partnerships such as university, college and professional sports.
- Customer support through MidAmerican's key account managers and the BusinessAdvantage® call center.
- MidAmerican's trade ally outreach program, described below.

In this energy efficiency plan, MidAmerican will expand its awareness offerings by:

- Updating its energy efficiency website.
- Updating its mass media campaign.
- Sponsoring presentations and demonstrations to employees of key account customers and in town hall meetings, community group presentations and other venues.
- Increasing direct outreach to communities, neighborhood associations and individuals.
- Participating in local energy education events.
- Leveraging educational opportunities available through MidAmerican's existing energy efficiency programs.
- Offer information and technical assistance for renewable energy projects within the MidAmerican Energy website. The information offered on the website will include estimate of renewable system energy production, installation cost, and energy bill savings and resources to help customers assess their property's renewable energy potential.

Trade Ally Support

In this area, MidAmerican engages in a number of activities designed to keep trade allies fully informed of program design changes, encourage trade allies to promote MidAmerican's energy efficiency programs and recognize outstanding trade ally performance. MidAmerican currently offers a wide range of support services to its trade allies, including formal and informal training, personal communication through in-person meetings, focus groups, phone calls and email blasts, and advertising support.

In this energy efficiency plan, MidAmerican will expand its trade ally support offerings by:

- Increasing resources for trade ally training and education.
- Creating new Web-based tools to facilitate program participation by trade allies' customers.
- Increasing Web-based efforts to promote qualified trade allies to MidAmerican's customers by providing information regarding which trade allies have successfully completed similar projects.
- Increasing resources to keep trade allies informed about MidAmerican's program activities and encourage participation.

In addition to these areas of energy education, MidAmerican also supports the Iowa Energy Center and the Iowa Center for Global and Regional Environmental Research through its annual remittances to these organizations. These organizations provide additional energy education to MidAmerican customers and trade allies.

Measure List

- There are no measures that receive rebates or incentives in this program.

Budgets

Anticipated five-year spending for the Education program is as follows:

Residential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,050,184	$ -	$ 1,050,184
2015	$ 1,076,439	$ -	$ 1,076,439
2016	$ 1,103,350	$ -	$ 1,103,350
2017	$ 1,130,934	$ -	$ 1,130,934
2018	$ 1,159,207	$ -	$ 1,159,207
Total	$ 5,520,114	$ -	$ 5,520,114

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,270,839	$ -	$ 1,270,839
2015	$ 1,302,610	$ -	$ 1,302,610
2016	$ 1,335,175	$ -	$ 1,335,175
2017	$ 1,368,554	$ -	$ 1,368,554
2018	$ 1,402,768	$ -	$ 1,402,768
Total	$ 6,679,946	$ -	$ 6,679,946

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 2,321,023	$ -	$ 2,321,023
2015	$ 2,379,049	$ -	$ 2,379,049
2016	$ 2,438,525	$ -	$ 2,438,525
2017	$ 2,499,488	$ -	$ 2,499,488
2018	$ 2,561,975	$ -	$ 2,561,975
Total	$ 12,200,060	$ -	$ 12,200,060

Nonresidential Budgets

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,587,444	$ -	$ 1,587,444
2015	$ 1,627,130	$ -	$ 1,627,130
2016	$ 1,667,808	$ -	$ 1,667,808
2017	$ 1,709,503	$ -	$ 1,709,503
2018	$ 1,752,241	$ -	$ 1,752,241
Total	$ 8,344,126	$ -	$ 8,344,126

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 455,632	$ -	$ 455,632
2015	$ 467,023	$ -	$ 467,023
2016	$ 478,699	$ -	$ 478,699
2017	$ 490,666	$ -	$ 490,666
2018	$ 502,933	$ -	$ 502,933
Total	$ 2,394,953	$ -	$ 2,394,953

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 2,043,076	$ -	$ 2,043,076
2015	$ 2,094,153	$ -	$ 2,094,153
2016	$ 2,146,507	$ -	$ 2,146,507
2017	$ 2,200,169	$ -	$ 2,200,169
2018	$ 2,255,174	$ -	$ 2,255,174
Total	$ 10,739,079	$ -	$ 10,739,079

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

There are no gas or electric savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Residential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ -	$ -	$ -
Program Costs	$ 5,261,188	$ 6,366,616	$ 11,627,804
Net Economic Benefits	$ (5,261,188)	$ (6,366,616)	$ (11,627,804)
Societal Test Ratio	-	-	-

Nonresidential Cost Effectiveness

Program	Electric	Gas	Total
Program Benefits	$ -	$ -	$ -
Program Costs	$ 7,952,736	$ 2,282,615	$ 10,235,352
Net Economic Benefits	$ (7,952,736)	$ (2,282,615)	$ (10,235,352)
Societal Test Ratio	-	-	-

Operations

Description of Operations

Each component employs a slightly different implementation strategy, as follows:

Training

In this area, MidAmerican sponsors training programs for customers and trade allies. Where appropriate, MidAmerican subsidizes registration fees for participating customers and trade allies. Key steps in program operations include:

- **Identify programs** – Identifying training programs appropriate to MidAmerican's customers and trade allies.
- **Identify instructors** – Identifying qualified instructors available to offer training in MidAmerican's service territory.
- **Determine locations** – Arranging venues with adequate space and other resources necessary to hold training sessions.
- **Coordinate offerings** – Coordinating offerings with other state and regional utilities, when appropriate.
- **Promote programs** – Developing and implementing marketing strategies appropriate to each training program.
- **Evaluate programs** – Evaluating program effectiveness.

School Curriculum

In this area, MidAmerican provides curriculum and other activities for use by schools. Key steps in program operations include:

- **Identify curriculum** – Identifying curriculum and other educational activities appropriate to MidAmerican's service territory.
- **Develop strategies** – Developing and implementing marketing and communications strategies appropriate to each activity.
- **Educator outreach** – Contacting teachers and administration officials to make them aware of the offerings.
- **Curriculum fulfillment** – Fulfilling orders for materials from schools.
- **Assembly fulfillment** – Delivering activities through schools in MidAmerican's service area.
- **Evaluate programs** – Evaluating the effectiveness of each activity.

Awareness

In this area, MidAmerican undertakes a number of activities to increase energy efficiency awareness among customers and trade allies. Awareness and outreach can include a broad range of activities including advertising. Program operation steps may vary by activity. Key steps in program operations may include:

- **Planning** – Planning for awareness activities such as participation in events, advertising campaigns, presentations and other activities.
- **Coordinating** – Coordinating activities with partners and contractors.
- **Develop materials** – Developing materials such as media publications, brochures and other materials.
- **Purchase media time** – Purchasing media time for venues such as television, radio, newspapers, magazines, Internet and outdoor signage.
- **Implement strategies** – Developing and implementing marketing strategies appropriate to each activity.
- **Evaluate activities** – Evaluating the effectiveness of each activity.

Trade Ally Support

In this area, MidAmerican undertakes a number of activities to support trade allies. Key steps in area program operations vary by activity, but generally include:

- **Develop communications channels** – Identifying and developing new communication channels, meetings and events, advertising support and other activities.
- **Improve website** – Improving the functionality of Trade Ally Central, MidAmerican's website for trade allies.
- **Trade ally outreach** – Outreach to and communication with trade allies.
- **Coordinate activities** – Coordinating activities with partners and contractors.
- **Implement strategies** – Developing and implementing marketing strategies appropriate to each activity.
- **Evaluate activities** – Evaluating the effectiveness of each activity.

Description of Outside Services

The Company currently contracts with Flynn Wright for advertising and awareness services, A-TEC Energy Corp. for Trade Ally support and Culver Company, LLC and Science Center of Iowa for curriculum development services. Additional contractors may be selected as the need arises. MidAmerican regularly reviews its contractor needs and contractual agreements as part of its internal program evaluation process.

Value Proposition

While benefits vary by program area, participants receive the following primary benefits:

- Participants expand energy efficiency knowledge through job- and interest-related trainings, increasing employment skills and promoting economic development.
- Participants invest in future generations by promoting energy efficiency education in schools and increasing opportunities for children to live in a clean and healthy environment.
- Participants receive energy savings and quality services by incorporating energy-saving behaviors into their everyday lives and by using the education programs as a stepping stone toward MidAmerican's other energy efficiency programs.
- Customers receive information to help them choose a qualified contractor to help them improve the energy efficiency of their homes.

Market Barriers

The table below presents the key market barriers to a successful education program and strategies to address each barrier. Note program strategies can only partially offset the identified barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Lack of customer awareness of educational opportunities	Outreach through traditional and non-traditional mechanisms Create a comprehensive marketing strategy and develop new outlets for awareness activities
Lack of time and resources to participate	Provide full or partial subsidies for educational opportunities Provide flexible scheduling Streamline programs to ensure efficient use of participants' time
Lack of profitability for education providers attempting to develop programs for local market	Leverage programs and curricula created by national organizations

Incentives

The incentive strategy is to overcome the financial barriers facing customers and trade allies using the following types of incentives:

- **Full subsidies** – MidAmerican will continue to offer school curricula and some training programs free of charge. For these activities, MidAmerican covers the full cost to program contractors for the coordination, promotion, development and implementation of educational events.
- **Partial subsidies** – For some professional-level training classes, MidAmerican will offer partial subsidies to cover approximately half of the cost to attend. In general, MidAmerican will process subsidies through payments to instructors and schools rather than through rebate checks to participants.
- **General awareness** – MidAmerican will continue to offer awareness activities free of charge to customers and trade allies.

Marketing Plan

General Marketing Plan

MidAmerican's education program will be available to all customers and trade allies throughout the Company's Iowa service territory. Training targets energy professionals, trade allies and interested homeowners and businesses. Curriculum targets teachers, administrators and students. MidAmerican's awareness activities are targeted to all customers and trade allies.

To increase awareness, MidAmerican will develop a formal marketing and advertising strategy for its entire portfolio as well as for industrial programs.

Customer Targets

Customer targets include all residential and nonresidential customers. Customer eligibility requirements are outlined below.

Customer Eligibility Parameters

	Electric Customers	Natural Gas Customers
Customer Class	All residential and nonresidential electric rate schedules	All residential and nonresidential natural gas rate schedules
Customer Status	No restrictions	No restrictions
Business Type	No restrictions	No restrictions
Geography	MidAmerican Iowa electric territory	MidAmerican Iowa natural gas territory
Size	No customer size limitations	No customer size limitations

Trade Ally Targets

Trade allies targeted by this program include the educators responsible for delivering the training and curriculum activities as well as groups such as the Iowa Energy Center and the Midwest Energy Efficiency Alliance, who help to coordinate activities among Iowa's utilities. Moreover, MidAmerican's entire trade ally network helps to deliver MidAmerican's program awareness activities. To support its trade allies and keep them informed of program opportunities and changes, MidAmerican will maintain an active trade ally outreach program. Key components of the program include the following:

- **Ongoing communication** – MidAmerican reaches out to existing and potential trade allies through personal communication led by the trade ally outreach contractor, website and mailing lists, email blasts, periodic events and in-person meetings, program presentations at trade ally meetings, lunch-and-learn events, expos and community events.
- **Marketing support** – MidAmerican promotes its trade allies through advertising in trade ally journals, sponsoring trade ally events, highlighting trade allies' projects in case studies and on its website, trade ally Web links and online information and listings in MidAmerican's trade ally database.
- **Recognition** – MidAmerican's Trade Ally Central website is being improved to recognize its trade allies in terms of quality installation, program participation and other areas. In addition, MidAmerican will highlight exceptional trade ally projects on its website and in case studies that are made available to customers. Customers will be able to access information about trade allies to help them select potential contractors for energy efficiency projects.

Promotion

Each of the program areas will be promoted through an appropriate marketing strategy that may include brochures, newspapers, magazines, TV, radio, Internet, outdoor signage, direct mail, bill inserts and one-on-one communication. Information on each activity will be available on MidAmerican's website and will be supported by MidAmerican's general awareness advertising.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Trees Program

Description of Program

The Trees program promotes tree planting through four different program components. Each component provides grants or other financial incentives as well as appropriate energy efficiency educational materials. Due to the success during the duration of its pilot, the Trees for E-bill program component will be included in this Plan.

Track I – Plant Some Shade

In this component, residential customers may order up to two trees at a low cost, subsidized by MidAmerican funding. The trees are distributed to customers at a number of one-day pickup events. Each customer also is given information on the benefits and care of trees best suited to Iowa's environment. This component is delivered in conjunction with the Iowa Department of Natural Resources (IDNR).

Track II – Trees Please!

In this component, MidAmerican provides annual grants for community tree-planting projects. Any city or town in MidAmerican's service territory may submit a grant request annually for tree-planting projects in common areas such as parks and city-owned properties. Communities may receive enhanced grants for special projects or to recover from a natural disaster.

Track III – Trees for Kids/Trees for Teens

In this component, MidAmerican funds and hosts tree-planting events at local schools or parks. Trees for Kids/Trees for Teens is a tree education and planting program for elementary and secondary schools across the state of Iowa. The program's mission is to promote the value of trees to Iowa's youth by providing educational information and opportunities for tree planting and care.

Track IV – Trees for E-bill

In this component, MidAmerican donates a dollar for tree planting for every customer that signs up for electronic billing through e-mail manager and eCSS. Each spring trees are planted by Living Land and Waters with volunteer labor.

The Trees program is available to all Iowa residential customers through the Plant Some Shade component, available to Iowa Cities thru our Trees Please! component and available to schools through the Trees for Kids/Trees for Teens component.

Measure List

The Trees program provides rebates and incentives for the following measures:

- Plant Some Shade
- Trees Please!
- Trees for Kids/Teens
- Trees for E-bill

Information on savings, incentives, incremental costs, and other qualifying information for all measures in this program is provided in Appendix A.

Budgets

Anticipated five-year spending for the Trees program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 283,300	$ -	$ 283,300
2015	$ 278,750	$ -	$ 278,750
2016	$ 284,800	$ -	$ 284,800
2017	$ 291,350	$ -	$ 291,350
2018	$ 298,500	$ -	$ 298,500
Total	$ 1,436,700	$ -	$ 1,436,700

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 283,300	$ -	$ 283,300
2015	$ 278,750	$ -	$ 278,750
2016	$ 284,800	$ -	$ 284,800
2017	$ 291,350	$ -	$ 291,350
2018	$ 298,500	$ -	$ 298,500
Total	$ 1,436,700	$ -	$ 1,436,700

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 566,600	$ -	$ 566,600
2015	$ 557,500	$ -	$ 557,500
2016	$ 569,600	$ -	$ 569,600
2017	$ 582,700	$ -	$ 582,700
2018	$ 597,000	$ -	$ 597,000
Total	$ 2,873,400	$ -	$ 2,873,400

Detailed budgets by spending category and staffing assumptions in FTEs for this program are provided in Appendix B.

Energy Savings

There are no gas or electric savings associated with this program.

Participation

Participation estimates for each measure offered in this program are provided in Appendix C.

Cost Effectiveness

Pursuant to Board Rule 35.8(2) "a" tree-planting programs shall not be tested for cost-effectiveness unless the utility wishes to present the results of cost-effectiveness tests for informational purposes. At this time, MidAmerican has not tested its tree-planting programs for cost-effectiveness and does not have any results to present for informational purposes.

Operations

Description of Operations

The program uses distinct processes for each of the tracks, which are detailed below.

Track I – Plant Some Shade

This component is coordinated by the IDNR. Key steps in this component include:

- **Tree order processing** – Customer phone or online orders for trees are processed.
- **Inventory acquisition** – Work with local nurseries to ensure enough quality trees are supplied to satisfy customer orders.
- **Information development** – Information is developed on the benefits of planting trees, the varieties of trees best suited to Iowa's environment, and how to plant, protect and care for trees.
- **Pick-up event** – A number of customer pick-up events are organized and conducted.

Track II – Trees Please!

This program is delivered and implemented directly by MidAmerican staff. Key steps in this component include:

- **Grant packages** – Grant packages are distributed to city administrators and community leaders each fall, including educational materials, detailed instructions on program operation and participation and a grant application.
- **Grant application review and processing** – Grant applications are reviewed and processed (if qualified) for city- or town-sponsored projects in community spaces, such as parks, schools, road right of ways or other public property.
- **Check delivery** – Checks are delivered to recipients.
- **Recipient reporting** – Recipients submit a report to MidAmerican detailing project progress and plans for completion. Recipients failing to submit a report are not eligible for future grant funding. Recipients typically must spend the total grant on the cost of the trees before they apply for another grant.

Track III – Trees for Kids/Teens

This component is coordinated by the IDNR. Key steps in this component include:

- **Information delivery** – Information and applications are sent to school administrators and teachers in MidAmerican's service territory each year.
- **Application review** – Applications for financial support to host events are reviewed and approved.
- **Tree planting event** – Organize and conduct a number of one-day tree planting events.
- **Funding request processing** – Funding requests for trees are processed.
- **Educational materials** – Age-appropriate educational materials are distributed on trees during events.

In addition to these program components, MidAmerican works with local nursery associations, conservation groups and state organizations to distribute a comprehensive resource booklet on the benefits of planting trees, the varieties of trees best suited to Iowa's environment and how to plant, prune, protect and care for trees. These booklets are distributed through community events, local nurseries, the Residential Assessments program and the call center.

Track IV – Trees for E-bill

In this component, MidAmerican donates a dollar for every customer that signs up for electronic billing through e-mail manager and eCSS. Each spring, trees are purchased and planted by Living Land and Waters using volunteer labor.

Description of Outside Services

Track I & Track III – Plant Some Shade & Trees for Kids/Trees for Teens: The IDNR is the primary program contractor, providing promotion, local coordination and delivery for the Plant Some Shade and Trees for Kids/Trees for Teens components. The IDNR works with local conservation organizations to provide on-the-ground organization of events, and with nurseries around the state to supply trees for these two components. The IDNR provides reports to MidAmerican on the Plant Some Shade and Trees for Kids/Trees for Teens components providing updates on program participation.

Track IV – Trees for E-bill: Living Lands and Waters is the contractor for Trees for E-bill program. They purchase the trees and organize the spring tree planting events.

Value Proposition

Customers receive the following benefits:

Financial benefits in the form of:

- Low cost trees to beautify their homes.
- Grants to help to beautify town or city parks, walking trails and public property and street spaces.
- Increased property values due to landscaping with trees.

Environmental benefits:

- Planting trees improves air quality, provides shade to reduce summer cooling energy, absorbs carbon dioxide and helps to protect the soil.

Confidence:

- Customers can count on getting trees each year. Each of the components provides a consistent, known quantity of trees or grant amounts through a simple order or application process. Cities can plan for their grants in organizing community beautification projects each year.

Market Barriers

The table below presents the key market barriers to an effective tree-planting program and strategies the program uses to address each barrier. Note these program strategies can only partially offset the barriers.

Market Barriers and Strategies

Market Barriers	Program Strategies
Lack of customer awareness of program	One-on-one outreach through green space conferences and local events Conduct market research to identify towns that do not participate in Trees Please! program and send program information Work with local conservation organizations, cities and extension agents to increase local marketing through newsletters, websites and events
Lack of customer awareness of proper tree selection and planting practices	Provide information on proper tree planting and care
Lack of adequate supply to meet demand	Coordinate with IDNR to ensure enough trees are ordered to meet demand Reach out to new nurseries to provide trees for program

Incentives

MidAmerican offers the following financial incentives to participants:

Track I – Plant Some Shade

- **Reduced cost** – The financial incentive for this program is a buy down of the cost of trees to $35 per tree. Customers are limited to two trees per event.

Track II – Trees Please!

- **Grants** – The financial incentive for this component includes block grants distributed in standardized amounts for most cities, with a few special projects receiving larger grants. Cities or towns applying for grant funds must provide 50 percent cost-sharing, either in cash or through in-kind services.

Track III – Trees for Kids/Trees for Teens

- **Trees provided at no cost** – The financial incentive is 100 percent of the tree costs are paid by MidAmerican.
- **Educational materials** – MidAmerican provides age-appropriate educational materials on trees.
- **Refreshments and free labor** – MidAmerican may sponsor refreshments and provide volunteer labor for school planting events.

Track IV – Trees for E-bill

- **Donations** – The financial incentive is $1 per customer signed up for E-bill to fund tree planting.

Marketing Plan

General Marketing Plan

Plant Some Shade and Trees for Kids/Trees for Teens components are coordinated through the IDNR with a variety of promotional support is provided by local conservation organizations. The Plant Some Shade component is promoted primarily through local newspaper advertisements in cities and towns where events take place, as well as on MidAmerican's website and is supported by MidAmerican's general awareness advertising.

The Trees Please! And the Trees for Kids/Trees for Teens components are promoted through annual direct mailings to community leaders and schools that include program information and grant application packages for the Trees Please! component. MidAmerican will work to increase participation in Trees Please! by attending conferences targeted to city governments and by researching cities and towns that may not already be included in the program database for mailings. Community tree-planting events also are promoted through press releases to local newspapers.

Brochures also are provided to local nurseries, environmental organizations and extension agencies as well as to customers at local events. MidAmerican will work with the IDNR and local coordinators to increase promotion of this program through partner websites, newsletters and broader distribution of information.

The Trees for E-bill is component is promoted through customer call center employees and through Web sign-ups.

Customer Targets

The Trees Please! component targets all of the communities in MidAmerican's Iowa service territory. Community organizations also may apply for Trees Please! funding, although each grant must be sponsored by a municipality. The Plant Some Shade component targets homeowners in all large and medium-sized cities and towns and in a rotating list of smaller towns each year. The Trees for Kids/Trees for Teens component targets school teachers and administrators. The Trees for E-bill targets all of MidAmerican energy customers that are considering electronic bill pay.

The table below outlines customer eligibility requirements.

Customer Eligibility Parameters

	Plant Some Shade	Trees Please!	Trees for Kid/Trees for Teens	Trees for E-bill
Customer Class	Residential	Governmental	Schools	Residential/ Business
Customer Status	Residential Customers	Public owned properties	Educational	Residential/ Business Customers
Building Type	N/A	N/A	N/A	N/A
Building Vintage	N/A	N/A	N/A	N/A
Geography	MidAmerican Iowa service territory	MidAmerican Iowa service territory	MidAmerican Iowa service territory	MidAmerican Iowa service territory
Building Size	N/A	N/A	N/A	N/A

Trade Ally Targets

The program relies primarily on the following trade allies for program delivery:

- Local nurseries
- Area conservation organizations
- Government agencies and non-profits
- Municipal government representatives
- Community leaders
- School administrations and teachers

The IDNR and local area conservation organizations play a large role in our Trees program.

Promotion

MidAmerican will promote the Plant Some Shade program through bill inserts, newspaper advertising, radio advertising and online advertising. The bill inserts will reference the cities where events are planned for the Plant Some Shade program.

MidAmerican call center associates will recommend the Trees for E-bill program to likely participants. This program is also advertised on MidAmerican's Web page where customers can sign up through MidAmerican's website for service.

MidAmerican will promote the Trees Please! program through direct mailing to the cities in MidAmerican's Iowa service territory.

Trees for Kids/Teens: The IDNR contacts schools regarding educational materials and grant applications for school plantings.

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Assessments

Description of Program

The money MidAmerican collects from customers to fund the Iowa Energy Center, the Center for Global and Regional Environmental Research and to pay the Iowa Utilities Board direct assessments is included in the Plan under Assessments. Pursuant to section 476.10A, all gas and electric utilities are required to remit one-tenth of one percent of the total gross operating revenues derived from intrastate public utility operations to the treasurer of state. Of the amounts collected, eighty five percent is appropriated to the Iowa energy center and fifteen percent is appropriated to the center for global and regional environmental research. These amounts are in addition to amounts permitted to be assessed pursuant to section 476.10.

These assessments are allocated between residential and nonresidential customers as follows:

- Electric assessments:
  - 45 percent residential
  - 54 percent nonresidential
  - 1 percent lighting
- Natural gas assessments:
  - 60 percent residential
  - 40 percent nonresidential

Measure List

There are no measures for this program.

Budgets

Anticipated five-year spending for the Assessments program is as follows:

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,320,268	$ -	$ 1,320,268
2015	$ 1,353,275	$ -	$ 1,353,275
2016	$ 1,387,107	$ -	$ 1,387,107
2017	$ 1,421,785	$ -	$ 1,421,785
2018	$ 1,457,330	$ -	$ 1,457,330
Total	$ 6,939,765	$ -	$ 6,939,765

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 585,829	$ -	$ 585,829
2015	$ 600,475	$ -	$ 600,475
2016	$ 615,487	$ -	$ 615,487
2017	$ 630,874	$ -	$ 630,874
2018	$ 646,646	$ -	$ 646,646
Total	$ 3,079,311	$ -	$ 3,079,311

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2014	$ 1,906,097	$ -	$ 1,906,097
2015	$ 1,953,750	$ -	$ 1,953,750
2016	$ 2,002,594	$ -	$ 2,002,594
2017	$ 2,052,659	$ -	$ 2,052,659
2018	$ 2,103,976	$ -	$ 2,103,976
Total	$ 10,019,076	$ -	$ 10,019,076

Energy Savings

There are no gas or electric savings associated with this program.

Participation

Not applicable.

Cost Effectiveness

Anticipated total net economic benefits of the program are as follows:

Program	Electric	Gas	Total
Program Benefits	$ -	$ -	$ -
Program Costs	$ 6,614,248	$ 2,934,873	$ 9,549,121
Net Economic Benefits	$ (6,614,248)	$ (2,934,873)	$ (9,549,121)
Societal Test Ratio	-	-	-

MidAmerican Energy Company
Iowa Energy Efficiency Plan 2014-2018
Support Functions

Monitoring and Verification Plan – Portfolio Review

MidAmerican will contract with an independent third-party energy efficiency program evaluator to conduct ongoing analyses of MidAmerican's energy efficiency portfolio across all states it serves. MidAmerican will review with the Office of Consumer Advocate and other interested Iowa stakeholders any requests for proposals to be issued to obtain the services of the third-party evaluator. MidAmerican will review responses to the requests for proposals with the Office of Consumer Advocate and other interested Iowa stakeholders and will consult with these groups on the selection of the third-party evaluator. The analyses provided by the evaluator will consist of both a process review and an impact review of each of MidAmerican's energy efficiency programs. A full analysis of each program will be conducted at least once during the 2014-2018 energy efficiency plans, including an annual analysis of MidAmerican's Residential Behavioral program. New programs and programs with major changes like HVAC Tune-Up and the EnergyWise Education, will be evaluated within one year after those new programs or changes have been fully implemented.

Process Review

The primary goals of the process reviews will be to provide actionable recommendations to MidAmerican to improve the design and implementation of its energy efficiency programs and to develop a best in class evaluation infrastructure for MidAmerican's energy efficiency programs.

Process evaluations will be systematic and transparent. Program evaluations will begin with documentation of current program design and results including successes and challenges. It is anticipated that researchable issues will emerge that will encompass program performance and operations, including quality of installations and process time for incentives, effectiveness of program marketing, collateral and outreach methods, how program marketing and implementation processes can be revised to optimize cost-effectiveness, performance of newly selected implementation contractors, satisfaction of participants and other market actors, barriers to participation and/or more effective implementation, means for overcoming those barriers, and the effectiveness of the program delivery mechanism.

It is anticipated that the process of making recommendations related to researchable issues will involve interviews with program staff, customers, and market actors. Additionally, the third-party process review will include an evaluation of areas that affect all energy efficiency programs (information technology, marketing, and organizational issues). Included in the cross-cutting evaluation will be interviews with trade and customer relations teams, energy efficiency advertising and promotion teams, and the regulatory group. Additionally, a logic model shall be included for each program to ensure the program is collecting the right information needed for evaluation over time.

Impact Review

The primary goals of the impact reviews will be to verify and document reported energy and demand savings associated with the individual programs and each portfolio of programs and to

provide additional due diligence to project savings in addition to what is being provided by implementation contractors.

Impact evaluations will be systematic and transparent. The goals of the impact reviews will be to verify gross ex-ante savings and to estimate net savings subject to the results and recommendations of the NTG policy report outlined in the Net-to-Gross section of this plan.

Verification of Gross Savings

Verification of gross savings will involve verification that measures are installed and operating as anticipated and a review of the savings algorithms and deemed values used by MidAmerican in determining ex-ante savings. This review will include an estimation of the reasonableness of these calculations relative to calculations used in other programs, a review of inputs (including costs and savings) used in the calculations and verification that these inputs are properly recorded in MidAmerican's tracking systems, and an independent confirmation of savings estimates using simulation modeling, engineering reviews, metering analyses, and statistical billing analyses where appropriate depending on the program. In addition, the impact verification will include a shelf survey to retailers to determine available measure stock and exit interviews with customers of retailers including information about purchases made, choices considered and factors determining choice.

In the case of custom projects, the review should include:

- Review of project description, documentation, and specifications.
- Review of invoices and dates of completion. In many cases, invoices provide the source of the specification via equipment identification, descriptions, and model numbers.
- Review of engineering analyses for technical soundness, appropriate baselines, and appropriateness for the specific application.
- Review of methods for determining demand savings to ensure they are consistent with program and/or utility methods for determining peak load/savings.
- Review of input data for appropriate baseline specifications and variables such as weather data, bin hours, and total annual hours and if they are consistent with facility operation.
- Review of project cost and baseline appropriateness. For example, should incremental costs and incremental savings versus a competing alternative be used or should the total cost of the measure and savings versus the actual old equipment be evaluated?
- Phone interview with the customer to verify the measure has been implemented, hours of use, duty cycle, and make and model of the equipment.
- Phone interview of the contractor or design professional responsible for the implementation to gather additional project specifics and operating characteristics as needed.
- Determination that the measure complies with program rules and is eligible based on payback limits, fuel switching issues, supply side technologies, and minimum equipment performance requirements.

The results of these analyses will yield realization rates by program and measure within each program that can be used to estimate gross ex-post savings both proactively and on a forward-looking basis.

Internal Verification of Projects

As commemorated in Issue 7 of the Settlement Agreement, and approved by the Board's Final Order, MidAmerican has agreed to include Quality Assurance for all new programs and programs with major changes in its M&V plan.

MidAmerican will conduct verification activities to ensure that measures have been installed across the energy efficiency portfolio. Currently, MidAmerican does 100 percent on-site inspection for all:

- Self-installed equipment (e.g., insulation)
- Equipment with rebates above $20,000

For other programs/measures, MidAmerican will select a random sample of program participants for verification. Contractors that are new to programs or have had failed past verifications will receive an oversample of verification visits and these will gradually be reduced (although not eliminated completely) with high compliance rates.

During the site visits, MidAmerican's program contractors verify that the equipment is installed, operating and matches measure characteristics tracked in its Energy Efficiency Management Information System.

Monitoring and Verification Plan – Timeline

In March 2014, MidAmerican will prepare draft evaluation plans for each program in the 2014-2018 Iowa Energy Efficiency plan according to the general guidelines listed in this document. The impact evaluation methods will conform to the protocols developed under the United States Department of Energy's Uniform Methods Project.

MidAmerican will distribute its draft EM&V plans to the Office of Consumer Advocate and other Iowa stakeholders and seek input on those plans. MidAmerican will also seek input from these stakeholders on the development of a Request for Proposal for engaging an independent EM&V contractor and will provide informational updates throughout the implementation of evaluation plans, including updates on EM&V contractor selection, scope of work, and the results of evaluations as they become available. MidAmerican will consult with stakeholders prior to taking a remedial action such as EM&V contractor dismissal.

The proposed timeline for evaluation activities are summarized below.

Activities	Start Date	End Date
Draft Plan	3/1/2014	4/15/2014
Draft Request for Proposal	3/1/2014	4/15/2014
Obtain Input from Stakeholders	4/15/2014	5/15/2014
Finalize Plan and Request for Proposal	5/15/2014	6/1/2014
Issue Request for Proposal	6/1/2014	--------
Contractor Selection	6/1/2014	12/31/2014
Program Evaluations	1/1/2015	6/30/2017

MidAmerican will promptly file all EM&V reports with the Board once generated.

Monitoring and Verification Plan – Statewide Technical Reference Manual

Upon approval from the Iowa Utilities Board, MidAmerican will work with the other IOUs operating energy efficiency programs in Iowa to contract with an independent third-party to develop an Iowa Statewide Technical Reference Manual (TRM). MidAmerican will work to form a planning committee that includes the Iowa IOUs and other interested Iowa stakeholders to develop a request for proposal for and independent third-party contractor to be selected through a competitive bidding process. It is MidAmerican's hope that the contracting process will begin no later than six months after the beginning of the plan. MidAmerican expects that the TRM will be completed by July 1, 2016.

The TRM would be a document that contains a set of savings algorithms, incremental cost algorithms, and other information needed to determine gross energy savings and system net benefits (subject to the results and recommendations of the NTG policy report outlined in the Net-to-Gross section of this plan) associated with the offering of various energy efficiency measures and programs. The TRM is intended to be used by all IOUs offering programs in Iowa.

Objectives

Development of a TRM would serve the following objectives:

- The TRM would provide a basis for the consistent and reliable estimation of measure-level gross savings for electric and gas programs offered in Iowa.
- The TRM would serve as a common reference document for all IOUs, stakeholders, program implementers, and regulators, so as to provide transparency to all parties regarding savings assumptions and calculations and the underlying sources of those assumptions and calculations.
- The TRM would support the consistent and transparent calculation of system net benefits and the cost-effectiveness of energy efficiency programs offered in Iowa.
- The TRM would provide standard protocols for determining energy savings for common custom projects as appropriate.
- The TRM would serve as a primary source document for future Statewide Assessment of Energy Efficiency Potential studies, and will identify current gaps in robust, primary data in Iowa that should be addressed in future assessments.

Scope

At a minimum, the TRM would include the following measure-level information:

- Name and description of the measure.
- Baseline equipment or conditions for each measure, incorporating federal and state equipment and building efficiency codes and standards where appropriate.
- Expected lifetime of the measure.
- Costs for the measure, including labor and non-labor costs, effective date for the costs and regional variations for the costs, if applicable.
- An equation or set of equations used to calculate electric energy savings, gas savings, coincident electric peak demand savings, peak day natural gas savings, water savings, and other non-energy benefits as appropriate including an example calculation based on assumed values for parameters included in the calculation.

- Information on interactive effects between measures where appropriate.
- Information on the load shape to be used to evaluate the system benefits associated with the measure.
- An equation or set of equations used to calculate the incremental cost of the measure for use in the determination of system net benefits and cost-effectiveness, including an example calculation based on assumed values for parameters included in the calculation.
- Information regarding specific requirements for the measure to qualify for inclusion in the energy efficiency program.

In addition to the information listed above, the TRM would include the following general information:

- Guidelines for use of the TRM.
- Definitions of terms used in the TRM.
- A defined process for updating and maintaining the TRM which would also include the preservation of a clear record of the deemed values, equations, etc., that were in effect at various times to facilitate evaluation and data accuracy reviews. At a minimum, the TRM would be updated annually. Known errors would be corrected as soon as possible. Major changes in public policy such as codes and standards, or technological advances could also create a need for mid-year adjustments.
- Full documentation of the assumptions and data sources used in the development of the TRM, including links to sources of data that are publicly available.
- A well-defined dispute resolution process to be used in the event that IOUs, stakeholders, and regulators are unable to agree on savings algorithms or other information to be included in the TRM.

Organization

The TRM would be developed and maintained by a third-party through a contract to be entered into jointly by the Iowa IOUs. The third-party contractor would be supported by a standing steering committee with representation from each of the Iowa IOUs and the Iowa Office of Consumer Advocate. A larger stakeholder advisory group would be organized to provide input to the development process, thus ensuring that the TRM would have input and support from a broad stakeholder group in Iowa.

The TRM would be a living document. While it is expected that significant resources would be involved in the initial development of the TRM, the third-party contractor, steering committee, and stakeholder advisory group would play an important role in the continued maintenance of the TRM, ensuring that the TRM would be a useful resource for Iowa energy efficiency program development and evaluation over the long term.

Monitoring and Verification Plan – Net-to-Gross

Upon completion of the United States Department of Energy's Uniform Methods Project review of net-to-gross issues across the country but no later than February 2014, and with approval of the Iowa Utilities Board, MidAmerican, other Iowa IOUs, and the other interested Iowa stakeholders will assemble a collaborative team to prepare a report to the Board with recommendations regarding Net-to-Gross policy and possible implementation framework. MidAmerican proposes to have the report completed by the third quarter of 2015 so findings can be considered in this plan and used to inform the next Joint Assessment of Potential Study.

MidAmerican will conduct a free-ridership and spillover analysis of its Residential Equipment program and its Appliance Recycling program to be completed by the end of 2014. The data collected through these analyses as well as the results of these analyses will be used by the collaborative team in preparing its recommendations. In addition, MidAmerican plans to investigate market conditions and conduct market research on an annual basis with the specific goal of collecting information that will inform MidAmerican's future program design and help set its incentives at levels that would minimize free-ridership.

Costs

The budget for the initial development of a TRM is expected to be approximately $250,000. The cost would be split equitably between the Iowa IOUs and would be recovered through the IOUs respective energy efficiency cost recovery mechanisms.

Collaboration with Stakeholders

Pursuant to the settled Issue 10 found in the Settlement Agreement and approved by the Board in its Final Order, MidAmerican has agreed to specific format for collaborating with interested stakeholders. This format commemorated is set forth in Appendix 3 to the Settlement Agreement entitled, "Collaboration Plan for MidAmerican and 2014-2018 Plan Stakeholders." Key collaborative activities will include:

1. Fall Operations Report/Review of program changes and updates;
2. Reporting of impact and spending progress;
3. Annual report and meeting;
4. EECR filing; and
5. Collaborative topical meetings.

Reporting

MidAmerican will conduct analyses of its programs on an annual basis and will report annual results to the Board. Annual reports will provide the following information:

- Energy and demand electric and gas savings by program and measure within each program on the following bases:
- Gross ax-ante
- Gross ex-post (where information is available from impact reviews)
- Comparisons of gross ex-ante savings to plan goals
- Estimated program lifetime savings
- Spending by program and measure within each program
- Comparisons of spending to plan goals
- Cost-effectiveness calculations by program based on the Societal Cost, the Total Resource Cost, the Utility, the Ratepayer Impact and the Participant tests
- Load shapes and avoided costs used in the cost-effectiveness analyses will be consistent with those used in the development of this plan.
- Measure lives and incremental costs will be consistent with information in the measure fact sheets provided in this plan.
- Calculations will be conducted on a gross ex-ante basis.

- Cost-effectiveness calculations by measure within each program based on the Societal Cost test

MidAmerican will also communicate informally with Board staff in the event that any changes to the operational details of the programs are needed.

Accounting Plan and Procedures

The rules on energy efficiency cost recovery defined in Section 199-35.12(1) of the Iowa Administrative Code require each utility to establish a plan and procedures to account for energy efficiency costs incurred on or after July 1, 1990. The rules also prescribe a set of procedures to insure that these costs are categorized appropriately and in sufficient detail to support a prudent review. Among other things, the rules specifically require that:

Each utility shall maintain a subaccount system, a work order system, or an accounting system that identifies individual costs by each program.

Each utility shall maintain accurate employee, equipment, materials, and other records that identify all amounts related to each individual energy efficiency program.

In accordance with these rules and in support of MidAmerican's monitoring and evaluation activities, the following system, activities and procedures have been established.

Accounting Plan

MidAmerican will use specified activities within its accounting system to identify expenditures as energy efficiency expenditures. Costs will be separated by program, cost category and resource using project numbers, subnumbers and cost elements. The project numbers are used to indicate the energy efficiency program for which the costs are being incurred. Project subnumbers are used to designate the category of costs, such as planning, administration, customer incentives, etc. Cost elements are used to indicate the type of cost such as labor, transportation or non-labor voucher costs.

Using the Oracle Financials code block, employees assign the appropriate energy efficiency code block to time sheets, purchase orders, requests for payment, and employee expense reports. Those elements of the code block that are specifically used to account for energy efficiency expenditures are as follows:

Responsibility Center

The responsibility center identifies the organizational unit within the company that is responsible for the expenditure.

Bill Center

The bill center identifies the business unit for which the cost was incurred. For energy-efficiency expenditures within the Delivery business unit, the bill center is the same as the responsibility center.

Utility Indicator

The utility indicator identifies which utility is responsible for the expenditure – electric, gas or common (allocated to gas and electric).

Activity Number

The activity number is used to identify energy efficiency expenditures. The activity numbers used are as follows:

Electric Activities	Description
173172	MEC Electric Recoveries Over/Under
186355	Iowa Electric Deferred Expenditures
186385	MEC Commercial New Construction Discount
254200	MEC Commercial New Construction Regulated Liability
419007	Interest Income
431061	Interest Expense – MEC Commercial New Construction
440011	Electric Residential Revenue
440045	Electric Residential Over/Under Recoveries
442011	Electric Small General Service Revenue
442045	Electric Small General Service Over/Under Recoveries
442211	Electric Large General Service Revenue
442245	Electric Large General Service Over/Under Recoveries
444211	Electric Street Lighting Revenue
444245	Electric Street Lighting Over/Under Recoveries
445011	Electric Public Authorities Revenue
908101	Electric Expense – Embedded
908105	Electric Amortization

Gas Activities	Description
173272	MEC Gas Recoveries Over/Under
186345	Iowa Gas Deferred Expenditures
186385	MEC Commercial New Construction Discount
254200	MEC Commercial New Construction Regulated Liability
419007	Interest Income
431061	Interest Expense – MEC Commercial New Construction
480011	Gas Residential Revenue
480042	Gas Residential Over/Under Recoveries
481011	Gas Commercial Service Revenue
481042	Gas Commercial Over/Under Recoveries
481211	Gas Industrial Service Revenue
481242	Gas Industrial Over/Under Recoveries
489021	Gas Transportation Revenue – Monthly Metering
489042	Gas Transportation Over/Under Recoveries
489062	Gas Transportation Revenue – Daily Metering
908205	Gas Amortization

Project Number

The project number is used to assign energy efficiency expenditures to programs. The project numbers used are as follows:

Electric Projects	Description
17802	Residential Equipment
17804	Commercial New Construction
17805	Nonresidential Equipment
17806	Residential New Construction
17808	Residential Assessment
17812	Energy Efficiency Management – Nonresidential Programs
17813	Low Income – Nonresidential
17818	Energy Efficiency Management - Residential Programs
17821	Nonresidential Energy Analysis
17831	Residential Load Management
17834	Energy Efficiency Management – All Programs
17836	Nonresidential Load Management
17838	Trees Programs
17839	Low Income – Residential
17842	Assessments
17848	Education – Nonresidential
17849	Education – Residential
17852	Agriculture – Nonresidential
17853	Agriculture – Residential
17854	Multifamily Housing – Nonresidential
17855	Multifamily Housing – Residential
17856	Appliance Recycling – Nonresidential
17857	Appliance Recycling – Residential
17858	Residential Upstream Retail Lighting
17859	Residential HVAC Tune-up
17860	Residential Behavioral
17861	Commercial Assessment

Gas Projects	Description
46002	Residential New Construction
98645	Trees Programs
98648	Nonresidential Energy Analysis
98656	Assessments
98849	Energy Efficiency Management – Residential Programs
98850	Low Income – Nonresidential
98851	Commercial New Construction
98852	Energy Efficiency Management – Nonresidential Programs
98853	Energy Efficiency Management – All Programs
98854	Low Income – Residential
98855	Residential Assessment
98856	Residential Equipment
98858	Nonresidential Equipment
98864	Education – Nonresidential
98865	Education – Residential
98866	Agriculture – Nonresidential
98867	Agriculture – Residential
98868	Multifamily Housing – Nonresidential
98869	Multifamily Housing – Residential
98870	Residential HVAC Tune-up
98871	Residential Behavioral
98872	Commercial Assessment

Project Subnumbers

The general project subnumbers are used to identify the cost category of the expenditure. Additional letters or numbers may be added to subnumbers to further segregate costs. The general project subnumbers used are as follows:

Subnumber	Description
30	Planning and Design
31	Administration
32	Advertising and Promotion
33	Customer Incentives
34	Monitoring and Evaluation
35	Miscellaneous
36	Equipment
37	Installation

Location Code

All energy efficiency expenditures will be accounted for using the Iowa location code 200.

Cost Elements

Appropriate cost elements will be used to identify the type of cost, i.e. labor, transportation, non-labor.

Procedures

Training in appropriate cost assignment will be provided at least annually to all employees charging energy efficiency activities.

Direct Costs

Direct costs are expenditures that can be specifically assigned to individual energy efficiency programs. All employees active in the design, implementation, or evaluation of energy efficiency programs and related activities shall be trained in the use of the energy efficiency code block and will be instructed to charge all costs, both labor and non-labor, that are incurred in the performance of their energy efficiency assignments to these energy efficiency activities and projects.

Accruals

MidAmerican accrues individually energy efficiency-budgeted funds for certain nonresidential projects with long lead times between project enrollment and completion. This process results in charging anticipated expenses in the year in which the large projects are pre-approved. This procedure enables MidAmerican to enter each new plan year with its planned budget intact for projects in that plan year. Further, this procedure responds fully to our nonresidential customers' concerns that the energy efficiency program(s) may not be administered in the future due to unforeseen regulatory changes and, thus, the customers might not receive their earned and promised incentive payments. Quarterly, journal entries are made for all new projects meeting minimum criteria, charging the appropriate energy efficiency account codeblock for the total amount of the incentive less a discount amount. The discount amount is computed using U.S. Treasury commercial paper rates and debited to a deferred debit activity (not an energy efficiency activity). The total amount of the incentive is credited to a regulated liability activity. The discounted incentive is debited to the deferred energy efficiency activity. As a result of this entry, MidAmerican receives these incentive dollars in the current EECR reconciliation year, but at a reduced level to reflect the fact that they have not actually paid the incentives yet. These amounts are reviewed quarterly and updated to reflect changes in estimated expenses and completion dates or incentive payments made. An interest income activity is debited and the discount activity is credited to offset the interest MidAmerican receives on this revenue. The regulated liability activity is reduced as incentive payments are made, and eventually zeroed out, as is the discount activity, upon payment of the final incentive. This procedure benefits both the utility and the customer. MidAmerican begins recovery of the amount in the year of occurrence of the energy efficiency expense and, through the regulated activity, the customer is assured payment of the incentive regardless of what entity, if any, is administering energy efficiency programs at that time. Currently, this individual accrual procedure is used only for the Commercial New Construction program.

MidAmerican also accrues quarterly a lump-sum for all other incentives to be paid in the subsequent 12 months. Because of the high volume/low individual value of these transactions, it would be virtually impossible to precisely determine a value to accrue for these unrecorded liabilities. Therefore, a lump-sum accrual is made for unprocessed incentive payments based on an estimate made with data extracted from the accounting system using historical experience for payments processed subsequent to the period in which the customer installation occurred. This accrual is recorded as a debit to a deferred account and a credit to an accrued liability account.

Indirect Costs

Indirect costs are expenditures for various employee benefits and payroll taxes that are charged to energy efficiency programs through the use of loading rates. The loading rates are periodically reviewed to determine whether revisions are needed.

Adjustments

Adjustments are amounts ordered by the Iowa Utilities Board (Board) in prudence reviews. Adjustments will be recognized as an offset to the amount approved for recovery in the deferred debit accounts and also recorded as a non-operating expense.

Incremental and Embedded Costs

Energy efficiency expenditures include non-labor costs that are not included in the revenue requirement approved by the Board in the MidAmerican's most recent general rate proceeding (incremental costs), as well as those that are in the revenue requirement (embedded costs). To identify the appropriate disposition of costs, non-labor expenditures accumulated in the deferred debit activities during any month are analyzed to determine whether the costs should remain in the deferral or be expensed.

Recoveries

Energy efficiency expenditures are charged to unique deferred debit activities. When amounts are billed to customers, they will be credited to the appropriate revenue activity through MidAmerican's Customer Service System (CSS). Anticipated recoveries will be projected for the 12-month recovery period and as amounts are recovered from customers an entry will be made to record the amount over or under the anticipated recovery to the appropriate activities.

Amortization

The deferred debits for energy efficiency expenditures will be reduced on a monthly basis by the amount of the approved expenditures as they are amortized.