

## **MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Executive Summary**

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### **General Description**

MidAmerican Energy Company (MidAmerican) proposes to continue providing a comprehensive portfolio of energy efficiency programs in this 2013-2017 energy efficiency plan. There are some significant changes in the details of MidAmerican's programs, however. MidAmerican has updated its avoided costs, recognizing the significant decrease in expected future natural gas prices. MidAmerican has also incorporated changes in standards resulting from implementation of the requirements of EISA 2007. In addition, MidAmerican has prepared this plan examining individually the cost-effectiveness of each of the measures offered, including only those that are expected to provide net benefits to MidAmerican's South Dakota customers.

Most programs will be offered as joint electric and natural gas programs. Customers will only be eligible for the portions of the programs related to the energy service they purchase from MidAmerican, however. For example, customers who purchase natural gas only will not be eligible to receive rebates for central air conditioners which save electricity. For programs that by their nature save energy from multiple sources, MidAmerican will estimate a savings value based on its avoided cost for that energy, regardless of what entity provides the energy service. The Residential Audit and Small Commercial Audit programs are the primary multi-energy source programs, however some measures in other programs may save energy from multiple sources as well.

### **Program List**

The 2013-2017 South Dakota energy efficiency plan provides rebates and incentives for energy efficiency projects and equipment for South Dakota customers in the following programs:

**Residential Equipment** – This program provides rebates to encourage customers to purchase high-efficiency space conditioning equipment, water heating equipment and appliances.

**Residential Audit** – This program provides free energy audits, energy savings suggestions, direct installation of simple energy-efficiency measures and rebates for more extensive building shell retrofits.

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

**Nonresidential Equipment** – This program provides rebates to encourage customers to purchase specified efficient heating, cooling, lighting, motor and commercial kitchen equipment.

**Nonresidential Custom** – This program provides financial incentives to encourage customers to pursue energy efficiency projects or purchase of efficient equipment that does not fit into MidAmerican's other nonresidential programs.

**Small Commercial Audit** – This program serves small business customers by providing energy audits, direct installation of simple energy-efficiency measures and rebates for more extensive projects.

**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.

**Budgets**

Anticipated five-year spending for the 2013-2017 South Dakota energy efficiency plan are shown in the table below. MidAmerican proposes a budget of nearly \$6.356 million in energy efficiency over the five-year period, with \$5.145 million of that for residential customers and \$1.21 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
2013	\$39,300	\$84,452	\$124,752
2014	\$39,500	\$103,742	\$143,242
2015	\$39,800	\$105,005	\$145,205
2016	\$40,300	<u>\$106,46469,124</u>	<u>\$147,164109,424</u>
2017	\$40,500	\$70,443	\$110,943
Total	\$199,400	<u>\$471,113433,773</u>	<u>\$672,513635,173</u>

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$141,500	\$1,179,964	\$1,321,464
2014	\$141,500	\$1,341,435	\$1,482,935
2015	\$141,500	\$1,102,347	\$1,243,447
2016	\$141,500	<u>\$970,774324,007</u>	<u>\$1,111,874465,507</u>
2017	\$141,500	\$327,447	\$468,947
Total	\$707,500	<u>\$4,921,9674,725,200</u>	<u>\$5,627,4674,980,700</u>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$180,800	\$1,265,417	\$1,446,217
2014	\$181,000	\$1,445,177	\$1,626,177
2015	\$181,300	\$1,207,352	\$1,388,652
2016	\$181,800	<u>\$1,077,238393,130</u>	<u>\$1,259,038574,930</u>
2017	\$182,000	\$397,891	\$579,891
Total	\$906,900	<u>\$5,393,0804,708,973</u>	<u>\$6,299,8805,651,873</u>

**Energy Savings**

MidAmerican expects to help customers install over 30,000 energy-efficiency measures in their homes and businesses over the next five years. By 2017 these measures are expected to reduce MidAmerican’s annual energy requirements by nearly 1,950,000 therms of natural gas and 2.42 million kilowatt-hours of electricity. Summer peak electric demand for South Dakota customers is also expected to be reduced by nearly 600 kilowatts. Anticipated savings levels for the 2013-2017 South Dakota energy efficiency plan are as follows.

**Electric Energy Programs**

Electric Savings	Annual kWh	Peak kW
2013	430,644	84.1
2014	565,624	103.2
2015	569,044	103.3
2016	<del>572,053</del> 345,160	<del>103.3</del> 72.7
2017	348,580	73.1
<b>Total</b>	<b><del>2,485,941</del>2,259,047</b>	<b><del>466.9</del>436.2</b>

**Electric Load Curtailment Programs**

Electric Savings	Annual kWh	Peak Kw
2013	720	106.0
2014	846	124.5
2015	967	142.4
2016	1,083	159.3
2017	1,192	175.3
<b>Average Annual Savings</b>	<b>962</b>	<b>141.5</b>

**Gas Energy Programs**

Gas Savings	Annual Therms	Peak Therms
2013	304,232	3,935.2
2014	305,395	4,008.9
2015	571,889	7,449.2
2016	<del>511,131</del> 100,141	<del>6424.81</del> 280.9
2017	100,192	1,281.5
<b>Total</b>	<b><del>1,892,851</del>1,481,861</b>	<b><del>24,378.319</del>234.2</b>

The installed measures will continue to save customer energy and money for many years. Over the 30-year period that MidAmerican used to evaluate the costs and benefits of the energy-efficiency programs, the programs are expected to save over 3628,000,000 therms of natural gas and 3936,000,000 kWh of electricity.

**Cost Effectiveness**

The anticipated total net present value of economic benefits for the 2013-2017 South Dakota energy efficiency plan is as follows.

Program	Electric	Gas	Total
Program Benefits (NPV)	<del>\$2,149,367</del> <del>2,698,83</del>	<del>\$17,873,451</del> <del>22,145,</del>	<del>\$20,022,818</del> <del>24,844</del>
	1	173	,004
Program Costs (NPV)	<del>\$1,178,899</del> <del>1,448,54</del>	<del>\$11,650,923</del> <del>15,719,</del>	<del>\$12,829,822</del> <del>17,167</del>
	3	149	,692
Net Economic Benefits (NPV)	<del>\$970,468</del> <del>1,250,288</del>	<del>\$6,222,528</del> <del>6,426,02</del>	<del>\$7,192,996</del> <del>7,676,3</del>
		4	12
TRC Ratio	<del>1.82</del> <del>1.86</del>	<del>1.53</del> <del>1.41</del>	<del>1.56</del> <del>1.45</del>

Overall the programs are expected to create net benefits to South Dakota’s customers of approximately \$7.~~27~~ million over the next 30 years. The benefit-cost ratio for the programs is ~~1.5645~~. That translates to lower energy supply costs of \$~~1.5645~~ 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 its experience with offering programs in South Dakota, 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. The effect of the recent economic downturn on nonresidential programs provides a good example. Because of this uncertainty, MidAmerican proposes to manage costs for its programs so that by-class by-service cost recovery factors would not exceed approved levels by more than 10 percent in any plan year. MidAmerican commits to closely monitoring its costs, and will request Commission approval in advance for any cost increases that would exceed this amount.

**MidAmerican Energy Company  
 South Dakota Energy Efficiency Plan 2013-2017  
 Residential Equipment Program**

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**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 South Dakota service area. Program measures must save energy supplied directly by MidAmerican.

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.

**Measure List**

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

- Central Air Conditioners
- Window Air Conditioners
- [Furnaces](#)
- Furnace Fans
- [Ground Source Heat Pumps](#)
- Air Source Heat Pumps
- Programmable Thermostats
- [Clothes Washers](#)

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
2013	\$13,200	\$57,494	\$70,694
2014	\$13,200	\$68,989	\$82,189
2015	\$13,200	\$68,985	\$82,185
2016	\$13,200	\$6836,979	\$8250,179
2017	\$13,200	\$36,981	\$50,181
Total	\$66,000	\$301269,428	\$367335,428

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Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$38,000	\$873,637	\$911,637
2014	\$38,000	\$789,023	\$827,023
2015	\$38,000	\$684,077	\$722,077
2016	\$38,000	<u>\$549,1589,158</u>	<u>\$587,15847,158</u>
2017	\$38,000	\$9,206	\$47,206
Total	\$190,000	<u>\$2,905,1012,365,101</u>	<u>\$3,095,1012,555,101</u>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$51,200	\$931,131	\$982,331
2014	\$51,200	\$858,012	\$909,212
2015	\$51,200	\$753,062	\$804,262
2016	\$51,200	<u>\$618,13746,137</u>	<u>\$66997,337</u>
2017	\$51,200	\$46,187	\$97,387
Total	\$256,000	<u>\$3,206,5792,634,529</u>	<u>\$3,462,5292,890,529</u>

**Energy Savings**

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

Electric Savings	Annual kWh	Peak kW
2013	153,004	31.5
2014	233,210	42.1
2015	233,210	42.2
2016	<u>233,21055,754</u>	<u>42.219.1</u>
2017	55,754	19.1
Total	<u>907,388730,932</u>	<u>177.1154.0</u>

Gas Savings	Annual Therms	Peak Therms
2013	213,698	2,779.3
2014	237,227	3,085.3
2015	403,708	5,250.0
2016	<u>324,9509,608</u>	<u>4,225.8124.9</u>
2017	9,659	125.6
Total	<u>1,207,242873,900</u>	<u>15,466.011,365.1</u>

**Cost Effectiveness**

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

Program	Electric	Gas	Total
Program Benefits	<u>\$808,9651,321,841</u>	<u>\$10,242,18913,914,014</u>	<u>\$11,051,15415,238,855</u>
Program Costs	<u>\$697,868957,177</u>	<u>\$7,641,70211,708,103</u>	<u>\$8,339,57012,665,280</u>
Net Economic Benefits	<u>\$111,097364,664</u>	<u>\$2,600,4872,205,911</u>	<u>\$2,711,5842,570,575</u>
TRC Ratio	<u>1.1638</u>	<u>1.3419</u>	<u>1.3320</u>



## **Description of Operations**

The program is delivered in partnership with heating and cooling dealers as well as retail outlets selling qualifying equipment. 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 staff provide overall strategic direction for the program, as well as conduct research and development, promotion, evaluation and other administrative functions.

Key steps in program participation include:

- 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 processing and database maintenance – The program implementation 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.

## **Marketing Plan**

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 email program information. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

## **MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Residential Audit Program**

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### **Description of Program**

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

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

### **Measure List**

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

#### Audits

- Single Family
- Multi-Family

#### Direct Install Measures

- Pipe Insulation
- Faucet Aerators
- Kitchen Aerators
- Low Flow Showerheads
- Water Heater Blankets
- Thermostats

#### Multi-Family Direct Install Measures

- Pipe Insulation
- Faucet Aerators
- Kitchen Aerators
- Low Flow Showerheads

#### Follow-Up Measures

- Attic Insulation
- Wall Insulation
- R/B/J Insulation

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 Audit program is as follows.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$500	\$1,475	\$1,975
2014	\$500	\$1,508	\$2,008
2015	\$500	\$1,497	\$1,997
2016	\$500	\$1,497	\$1,997
2017	\$500	\$1,519	\$2,019
<b>Total</b>	<b>\$2,500</b>	<b>\$7,496</b>	<b>\$9,996</b>

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$80,500	\$217,695	\$298,195
2014	\$80,500	\$221,409	\$301,909
2015	\$80,500	\$221,651	\$302,151
2016	\$80,500	\$224,200	\$304,700
2017	\$80,500	\$226,789	\$307,289
<b>Total</b>	<b>\$402,500</b>	<b>\$1,111,744</b>	<b>\$1,514,244</b>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$81,000	\$219,170	\$300,170
2014	\$81,000	\$222,918	\$303,918
2015	\$81,000	\$223,148	\$304,148
2016	\$81,000	\$225,697	\$306,697
2017	\$81,000	\$228,308	\$309,308
<b>Total</b>	<b>\$405,000</b>	<b>\$1,119,241</b>	<b>\$1,524,241</b>

**Energy Savings**

Anticipated savings levels for the Residential Audit program are as follows.

Electric Savings	Annual kWh	Peak kW
2013	3,424	0.9
2014	3,424	0.9
2015	3,424	0.9
2016	3,424	0.9
2017	3,424	0.9
<b>Total</b>	<b>17,120</b>	<b>4.5</b>

Gas Savings	Annual Therms	Peak Therms
2013	38,904	424.4
2014	38,904	424.4
2015	38,904	424.4
2016	38,904	424.4
2017	38,904	424.4
<b>Total</b>	<b>194,520</b>	<b>2,122.0</b>

**Cost Effectiveness**

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

Program	Electric	Gas	Total
Program Benefits	\$20,247	\$2,992,166	\$3,012,413
Program Costs	\$11,583	\$1,813,602	\$1,825,185
Net Economic Benefits	\$8,664	\$1,178,564	\$1,187,228
TRC Ratio	1.75	1.65	1.65

**Description of Operations**

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

Key steps in program participation include:

- On-site audit scheduling – The customer calls the program implementation contractor to schedule an audit, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an audit.
- On-site audit 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.
- Audit report – The program contractor provides the homeowner an audit report that includes recommendations for energy efficiency improvements. The information packet also provides website addresses for additional rebate information and applications.
- Rebate application – When customers install recommended insulation, they submit application forms 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 insulation installations as well as all self-installed projects.

When multifamily buildings receive at least some service on nonresidential tariffs – either because the building is master-metered or because common areas and building systems are served on nonresidential tariffs – customers receive services from the Small Commercial Energy Audit program in coordination with the Residential Audit program.

The program also offers an online energy audit 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 audit by completing a simple online form.

### **Marketing Plan**

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 to submit contact information to schedule an audit, 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 audit and generate 'word of mouth' advertising after an audit.

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 email program information. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

## MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Residential Load Management Program

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### **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<sup>SM</sup>. The program reduces the peak demand for electricity by cycling participants' air conditioners during the course of an event.

South Dakota residential electric customers that live in owner-occupied, single-family homes and that have central air-conditioning in good working order are eligible for the program. Certain models of central air conditioners are not compatible with the technology of the program, however, and therefore cannot participate. Also, customers with geothermal heat pumps are not eligible for the program.

### **Budgets**

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

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$10,000	\$3,980	\$13,980
2014	\$10,200	\$4,729	\$14,929
2015	\$10,500	\$5,479	\$15,979
2016	\$11,000	\$6,241	\$17,241
2017	\$11,200	\$6,991	\$18,191
Total	\$52,900	\$27,421	\$80,321

### **Energy Savings**

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

Electric Savings	Annual kWh	Peak kW
2013	720	106.0
2014	846	124.5
2015	967	142.4
2016	1,083	159.3
2017	1,192	175.3
Average Annual Savings	962	141.5

## **Cost Effectiveness**

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

Program	Total
Program Benefits	\$98,506
Program Costs	\$45,873
Net Economic Benefits	\$52,633
TRC Ratio	2.15

## **Description of Operations**

Participants agree to allow MidAmerican to control their equipment during the four summer months (June to September). MidAmerican installs a load control receiver (LCR) on participants' houses near their outside disconnect switches and air-conditioning compressors. 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.

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 have typically occurred up to 15 times per year, although there is no contractual limitation on the number of annual events. The average number of events per year in recent history is eight. Cycling events may be called by MidAmerican's Energy Supply Management Department or the Midwest Independent Transmission Operator (MISO).

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

MidAmerican's program contractor maintains a network of electrical contractors responsible for installing and removing LCRs on customers' homes. In addition, trade allies providing HVAC maintenance services and those selling HVAC equipment also can influence customers' decisions to participate in the program.

Key steps in the program include:

- Soliciting new program participants through direct mailings to targeted customers,
- Enrolling new participants,
- Coordinating installation of LCRs,

- Managing cycling events during the summer season,
- Servicing and maintaining installed LCRs,
- Processing incentive bill credits through the billing system,
- Informing participants about program operations through targeted mailings and the company Web site,
- Processing customers leaving the program, including removing LCRs (if necessary) and paying partial credits via check, and
- Sending targeted mailings to current participants that move into new homes and also to customers moving into homes of previous participants.

### **Marketing Plan**

MidAmerican solicits new participants in this program through annual mailings targeting the following customers:

- Customers with significant summer electricity purchases indicating air conditioning,
- Customers moving into homes previously enrolled in the program and
- Customers previously enrolled in the program moving to new homes in MidAmerican's service territory.

## MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Appliance Recycling Program

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### **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 prevent customers who currently use a qualifying appliance from keeping 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 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.

This is a new program in South Dakota.

### **Measure List**

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

Refrigerators  
Freezers  
Window Air Conditioners

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.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$2,000	\$3,270	\$5,270
2014	\$2,000	\$3,942	\$5,942
2015	\$2,000	\$4,461	\$6,461
2016	\$2,000	\$5,133	\$7,133
2017	\$2,000	\$5,632	\$7,632
Total	\$10,000	\$22,438	\$32,438

**Energy Savings:**

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

Electric Savings	Annual kWh	Peak kW
2013	21,314	2.9
2014	25,650	3.5
2015	29,070	3.9
2016	33,080	3.9
2017	36,500	4.4
Total	145,614	18.6

**Cost Effectiveness:**

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

Program	Total
Program Benefits	\$37,319
Program Costs	\$22,176
Net Economic Benefits	\$15,144
TRC Ratio	1.68

**Description of Operations**

MidAmerican will use a program contractor that specializes in recycling appliances to administer and manage a turnkey program. 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. 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 staff provide overall strategic direction for the program, conduct research and development, and provide promotion, evaluation and other administrative functions.

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

### **Marketing Plan**

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. 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 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

### South Dakota Energy Efficiency Plan 2013-2017

### Nonresidential Equipment Program

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#### **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 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:

- Variable Speed Drives
- Central Air Conditioners
- Natural Gas Furnaces
- Natural Gas Boilers
- Window Air Conditioners
- Programmable Thermostats
- Natural Gas Water Heaters
- Lighting
  - Pulse-Start Metal Halide Lighting
  - LED Exit Lights
  - T-5/T-8 Fluorescent 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 Nonresidential Equipment program is as follows.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$4,100	\$10,115	\$14,215
2014	\$4,100	\$15,459	\$19,559
2015	\$4,100	\$15,457	\$19,557
2016	\$4,100	<del>\$10,113</del> <b>\$15,453</b>	<del>\$14,213</del> <b>\$19,553</b>
2017	\$4,100	\$10,114	\$14,214
<b>Total</b>	<b>\$20,500</b>	<del>\$66,598</del> <b>\$61,258</b>	<del>\$87,098</del> <b>\$81,758</b>

MidAmerican Energy Company  
South Dakota Energy Efficiency Plan 2013-2017  
Revised Exhibit 1

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$1,500	\$35,650	\$37,150
2014	\$1,500	\$277,413	\$278,913
2015	\$1,500	\$142,415	\$143,915
2016	\$1,500	\$ <u>142,419</u> <del>35,652</del>	\$ <u>143,919</u> <del>37,152</del>
2017	\$1,500	\$35,651	\$37,151
Total	\$7,500	\$ <u>633,548</u> <del>526,781</del>	\$ <u>641,048</u> <del>534,281</del>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$5,600	\$45,765	\$51,365
2014	\$5,600	\$292,872	\$298,472
2015	\$5,600	\$157,872	\$163,472
2016	\$5,600	\$ <u>157,872</u> <del>45,765</del>	\$ <u>163,472</u> <del>51,365</del>
2017	\$5,600	\$45,765	\$51,365
Total	\$28,000	\$ <u>700,146</u> <del>588,039</del>	\$ <u>728,146</u> <del>616,039</del>

**Energy Savings**

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

Electric Savings	Annual kWh	Peak kW
2013	192,104	29.0
2014	242,542	37.0
2015	242,542	36.6
2016	<u>242,542</u> <del>192,104</del>	<u>36.6</u> <del>29.0</del>
2017	192,104	29.0
Total	<u>1,111,834</u> <del>1,061,396</del>	<u>168.2</u> <del>160.6</del>

Gas Savings	Annual Therms	Peak Therms
2013	27,547	460.9
2014	105,195	1,507.8
2015	105,195	1,504.1
2016	<u>105,195</u> <del>27,547</del>	<u>1,504.1</u> <del>460.9</del>
2017	27,547	460.9
Total	<u>370,679</u> <del>293,031</del>	<u>5,437.84</u> <del>394.6</del>

**Cost Effectiveness**

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

Program	Electric	Gas	Total
Program Benefits	\$ <u>836,491</u> <del>873,019</del>	\$ <u>3,188,993</u> <del>3,788,889</del>	\$ <u>4,025,484</u> <del>4,661,908</del>
Program Costs	\$ <u>176,592</u> <del>186,928</del>	\$ <u>1,667,207</u> <del>1,669,032</del>	\$ <u>1,843,799</u> <del>1,855,960</del>
Net Economic Benefits	\$ <u>659,899</u> <del>686,091</del>	\$ <u>1,521,786</u> <del>2,119,857</del>	\$ <u>2,181,685</u> <del>2,805,948</del>
TRC Ratio	<u>4.744</u> <del>67</del>	<u>1.912</u> <del>27</del>	<u>2.185</u> <del>1</del>

## **Description of Operations**

The program is delivered in partnership with heating and cooling dealers. MidAmerican uses a program contractor to support the program. This contractor is responsible for handling customer calls, reviewing project applications, tracking results and processing customer rebates.

MidAmerican staff provide overall strategic direction for the program; calculate cost-effectiveness, payback periods and rebates; conduct research and development and provide promotion, evaluation, and other administrative functions.

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 qualification – The program contractor determines if the project meets the minimum efficiency requirement of the measure.
- Preapproval – The program implementation contractor sends the customer a project preapproval letter for those projects with an incentive of \$10,000 or more.
- Technical assistance – When necessary, the program contractor helps a customer identify the technical information necessary to submit a request for project preapproval.
- Rebate processing and database maintenance – The program implementation contractor and MidAmerican process rebates and enter project information into a database for tracking and reporting purposes.
- Verification – The program implementation contractor field verifies a percentage of all projects.

## **Marketing Plan**

MidAmerican will promote the program through articles that will periodically appear in a monthly electronic newsletter sent to nonresidential customers as well as 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, application and verification forms, and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills and monthly in the electronic newsletter.

Key account managers will promote the program to large commercial and industrial customers during routine contacts. Key account managers help assigned customers identify energy efficiency projects and determine whether the projects qualify for prescriptive rebates or if they should be submitted through the custom program.

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 email program information. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

**MidAmerican Energy Company**  
**South Dakota Energy Efficiency Plan 2013-2017**  
**Custom Program**

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**Description of Program**

The custom program promotes the implementation of energy efficiency projects and purchase of energy-efficient equipment that does not fit into MidAmerican Company’s other nonresidential programs. The program offers financial incentives to customers installing energy-efficient equipment or systems not covered by a prescriptive rebate in the Nonresidential Equipment program. The program is marketed as the Custom Systems program.

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.

**Budgets**

Anticipated five-year spending for the Custom program is as follows.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$9,000	\$7,884	\$16,884
2014	\$9,000	\$7,881	\$16,881
2015	\$9,000	\$7,883	\$16,883
2016	\$9,000	\$7,887	\$16,887
2017	\$9,000	\$7,901	\$16,901
<b>Total</b>	<b>\$43,000</b>	<b>\$39,436</b>	<b>\$84,436</b>

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$9,000	\$22,236	\$31,236
2014	\$9,000	\$22,239	\$31,239
2015	\$9,000	\$22,236	\$31,236
2016	\$9,000	\$22,232	\$31,232
2017	\$9,000	\$22,219	\$31,219
<b>Total</b>	<b>\$47,000</b>	<b>\$111,162</b>	<b>\$156,162</b>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$18,000	\$30,120	\$48,120
2014	\$18,000	\$30,120	\$48,120
2015	\$18,000	\$30,120	\$48,120
2016	\$18,000	\$30,120	\$48,120
2017	\$18,000	\$30,120	\$48,120
<b>Total</b>	<b>\$90,000</b>	<b>\$150,600</b>	<b>\$240,600</b>

**Energy Savings**

Anticipated savings levels for the Custom program are as follows.

Electric Savings	Annual kWh	Peak kW
2013	59,210	19.5
2014	59,210	19.5
2015	59,210	19.5
2016	59,210	19.5
2017	59,210	19.5
<b>Total</b>	<b>296,050</b>	<b>97.5</b>

Gas Savings	Annual Therms	Peak Therms
2013	13,774	242.6
2014	13,774	242.6
2015	13,774	242.6
2016	13,774	242.6
2017	13,774	242.6
<b>Total</b>	<b>68,870</b>	<b>1,213.0</b>

**Cost Effectiveness**

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

Program	Electric	Gas	Total
Program Benefits	\$338,128	\$554,991	\$893,118
Program Costs	\$215,416	\$336,456	\$551,871
Net Economic Benefits	\$122,712	\$218,535	\$341,247
TRC Ratio	1.57	1.65	1.62

**Description of Operations**

MidAmerican uses two program contractors to help deliver the program. One 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 revises expected annual energy savings from installed projects, if appropriate. The other contractor is responsible for tracking results and processing customer rebates.

MidAmerican staff provide overall strategic direction for the program; calculate cost-effectiveness, payback periods and rebates; conduct research and development, and provide promotion, evaluation, and other administrative functions.

Key steps in program participation include:

- Program application – The customer identifies a project and fills out an application to define project equipment, costs and energy savings for project evaluation. This may be done with the assistance of a trade ally and/or key account manager, or as a result of a small commercial energy audit.
- Technical assistance – When necessary, the program contractor helps a customer identify the technical information necessary to submit for project evaluation.
- Project evaluation – The program contractor determines project incremental cost and potential energy and capacity savings data.
- Cost effectiveness analysis and rebate calculation – MidAmerican evaluates cost-effectiveness and determines if the project meets program guidelines and qualifies for financial incentives. The incentive will be the minimum of three years' bill savings or the buy-down (from incremental cost) to a two-year payback, unless the payback is less than two years. Projects with buy-downs of less than two years are not eligible for incentives. Rebate amounts are also capped at 70 percent of installed cost.
- Approval/denial notification – MidAmerican either sends the customer a project approval letter and self-verification form or a denial letter.
- Rebate processing and database maintenance – The program implementation contractor and MidAmerican process rebates and maintain the database for tracking and reporting purposes.
- Verification – The customer submits a self-verification form. Where appropriate, the program contractor verifies that a project installation meets program guidelines.

### **Marketing Plan**

MidAmerican will promote the program through articles that will periodically appear in a monthly electronic newsletter sent to small to midsize commercial customers as well as 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, application and verification forms, and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills and monthly in the electronic newsletter.

Key account managers will promote the program to large commercial and industrial customers during routine contacts. Key account managers help assigned customers identify energy efficiency projects and determine whether the projects qualify for prescriptive rebates or if they should be submitted through the custom program.

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 email program information. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

## **MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Small Commercial Audit**

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### **Description of Program**

The small commercial audit program promotes comprehensive efficiency strategies for smaller, existing commercial customers. It provides online energy audits, more extensive on-site energy audits, direct installation of low-cost efficiency measures, and recommendations for additional measures. The program is marketed under the registered trademark name BusinessCheck®.

The onsite audit is available to all small buildings that receive electricity and/or natural gas supplied directly from MidAmerican. The program is designed to evaluate energy use in buildings up to 25,000 sq. ft. The online audit is available to all customers.

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 Small Commercial Audit program provides rebates and incentives for the following measures:

#### Audits

- Business
- Multi-Family

#### Direct Install Measures

- Pipe Insulation
- Faucet Aerators
- Kitchen Aerators
- Low Flow Showerheads
- LED Exit Lighting

#### Multi-Family Direct Install Measures

- Faucet Aerators
- Kitchen Aerators
- Low Flow Showerheads

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 Small Commercial Audit program is as follows.

Electric Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$900	\$1,235	\$2,135
2014	\$900	\$1,239	\$2,139
2015	\$900	\$1,243	\$2,143
2016	\$900	\$1,274	\$2,174
2017	\$900	\$1,306	\$2,206
<b>Total</b>	<b>\$4,500</b>	<b>\$6,297</b>	<b>\$10,797</b>

Gas Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$12,100	\$30,746	\$42,846
2014	\$12,100	\$31,350	\$43,450
2015	\$12,100	\$31,968	\$44,068
2016	\$12,100	\$32,765	\$44,865
2017	\$12,100	\$33,583	\$45,683
<b>Total</b>	<b>\$60,500</b>	<b>\$160,412</b>	<b>\$220,912</b>

Total Spending	Administrative Cost	Incentive Cost	Total Cost
2013	\$13,000	\$31,981	\$44,981
2014	\$13,000	\$32,589	\$45,589
2015	\$13,000	\$33,211	\$46,211
2016	\$13,000	\$34,038	\$47,038
2017	\$13,000	\$34,889	\$47,889
<b>Total</b>	<b>\$65,000</b>	<b>\$166,708</b>	<b>\$231,708</b>

**Energy Savings**

Anticipated savings levels for the Small Commercial Audit program are as follows.

Electric Savings	Annual kWh	Peak kW
2013	1,587	0.2
2014	1,587	0.2
2015	1,587	0.2
2016	1,587	0.2
2017	1,587	0.2
<b>Total</b>	<b>7,935</b>	<b>1.0</b>

Gas Savings	Annual Therms	Peak Therms
2013	10,308	27.9
2014	10,308	27.9
2015	10,308	27.9
2016	10,308	27.9
2017	10,308	27.9
<b>Total</b>	<b>51,540</b>	<b>139.5</b>

**Cost Effectiveness**

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

Program	Electric	Gas	Total
Program Benefits	\$9,711	\$895,112	\$904,823
Program Costs	\$9,391	\$191,956	\$201,347
Net Economic Benefits	\$320	\$703,156	\$703,476
TRC Ratio	1.03	4.66	4.49

**Description of Operations**

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 audits. The other contractor handles associated rebate processing for recommended measures that are installed following an audit.. MidAmerican staff provide overall strategic direction for the program, conduct research and development and provide, promotion, evaluation and other administrative functions.

Key steps in program participation include:

- On-site audit scheduling – The customer calls the program implementation contractor to schedule an audit, or is transferred by MidAmerican. The customer also may submit an online form to receive a call to schedule an audit.
- On-site audit completion – The program contractor evaluates eligibility for financial incentives for additional measures, reviews energy usage and cost patterns found in historic energy bills, informs customers of ways to operate building energy systems more efficiently, installs low-cost energy efficiency measures, and provides contact information as well as information regarding how to participate in MidAmerican’s other energy efficiency programs.
- Audit report – The program contractor provides the business owner an audit report that includes recommendations for energy efficiency projects appropriate for small businesses, focusing particularly on insulation and lighting projects. The report also provides website addresses for additional rebate information and applications.
- Rebate application – When a customer completes a prescriptive or custom project as a result of their audit, 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.

When multifamily buildings receive at least some service on nonresidential tariffs – either because the building is master-metered or because common areas and building systems are served on

nonresidential tariffs – customers receive services from the Small Commercial Energy Audit program in coordination with the Residential Audit program (HomeCheck®). The program also offers an online energy audit 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 audit by completing a simple online form.

### **Marketing Plan**

MidAmerican will promote the program through articles that will periodically appear in a monthly electronic newsletter sent to small to midsize commercial customers as well as 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 audit, and a program brochure. A reference to the energy efficiency website will appear quarterly on customer bills and monthly in the electronic newsletter. Additionally, MidAmerican will target specific business segments with industry-specific information through direct mail 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 email program information. MidAmerican's Trade Ally Central website provides additional resources for trade ally engagement.

The target market for this program includes small commercial customers (owners and tenants) in existing commercial buildings. The program also uses building size (generally, less than 25,000 square feet) and tariff rates (those used by smaller business customers) to target and qualify customers. However, the program manager uses discretion to determine whether this or other programs would better serve customer needs.

## **MidAmerican Energy Company South Dakota Energy Efficiency Plan 2013-2017 Support Functions**

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### **Monitoring and Verification Plan**

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. These analyses 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 2013-2017 energy efficiency plans. The contracting process will begin no later than six months after the beginning of the plan.

#### **Process Review**

The primary goals of the process reviews will be to provide actionable recommendations to MidAmerican to improve the design and implementation of the Company's 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, 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. In addition, 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.

#### **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
- Estimate net savings

#### **Verification of Gross Savings**

Verification of gross savings will involve 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 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, metering analysis, and statistical billing analysis where appropriate depending on the program.

In the case of custom projects, the review can 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

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 \$30,000

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.

## **Reporting**

MidAmerican will conduct analyses of its programs on an annual basis and will report annual results to the Commission. 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 and measure within each program based on the Total Resource Cost test
  - 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.
- Updated expected spending and gross ex-post savings by program for the upcoming year.
- Calculation of over/under recovery of prior year actual energy efficiency costs through the energy efficiency cost recovery adjustment clause.

MidAmerican will also communicate informally with Commission staff in the event that any changes to the operational details of the programs are needed.

## **Accounting Plan and Procedures**

### **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 - electric, gas or common (allocated to gas and electric) - is responsible for the expenditure.

Activity Number

The activity number is used to identify energy-efficiency expenditures. The activity numbers used are as follows.

<u>Electric Activities</u>	<u>Description</u>
173172	MEC Electric Recoveries Over/Under
186355	MEC Electric Deferred Expenditures
419007	Interest Income
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	MEC Gas Deferred Expenditures
419007	Interest Income
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.

Project Number	Description
17802	Electric Residential Equipment
17805	Electric Nonresidential Equipment
17808	Electric Residential Audit
17812	Electric Energy Efficiency Management – Nonresidential Programs
17817	Electric Nonresidential Custom
17818	Electric Energy Efficiency Management - Residential Programs
17820	Electric Small Commercial Audit
17831	Electric Residential Load Management
17834	Electric Energy Efficiency Management – All Programs
17857	Electric Appliance Recycling – Residential
98647	Gas Small Commercial Audit
98849	Gas Energy Efficiency Management – Residential Programs
98852	Gas Energy Efficiency Management – Nonresidential Programs
98853	Gas Energy Efficiency Management – All Programs
98855	Gas Residential Audit
98856	Gas Residential Equipment
98858	Gas Nonresidential Equipment
98859	Gas Nonresidential Custom

Project Subnumbers

The general project subnumbers are used to identify the cost category of the expenditure. The general project subnumbers used are as follows. Additional letters or numbers may be added to subnumbers to further segregate costs.

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 South Dakota location code 400.

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.

Indirect Costs

Indirect costs are costs for various employee benefits and payroll taxes that are directly 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 Commission 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.

Recoveries

Energy efficiency expenditures are charged to unique debit activities. When amounts are billed to customers, they will be credited to the appropriate revenue activity through MidAmerican's Customer Service System. 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.

Use and Municipal Tax

Nonresidential audits (Small Commercial Audits and Multifamily Audits) are taxable and the tax is generally not included in contractor pricing for audit services to MidAmerican. Quarterly, MidAmerican calculates Use Tax on all non-residential audits completed and Municipal Tax on completed audits in cities where applicable, and records the total tax in an accrual account. In the month following the accrual, the accrual account is cleared (debited), a cash account is credited, and a check is sent to the South Dakota State Treasurer. Applicable taxes on all other services and measures are included in contractor pricing and paid to the state by the contractor.