Introduction

After discussions with the South Dakota Public Utilities Commission Staff, MidAmerican Energy Company (MidAmerican) revised its Energy Efficiency Plan (Plan) it filed on April 16, 2007. MidAmerican submits its revised Plan for the South Dakota Public Utilities Commission (SDPUC) consideration and approval.

With this revised filing, MidAmerican proposes to begin offering energy efficiency programs to its electric and natural gas customers in South Dakota. MidAmerican has offered similar programs in Iowa for over 17 years and recently launched similar programs in Illinois.

MidAmerican's revised Plan eliminated some energy efficiency programs; which lowered MidAmerican's program expenditures by approximately one million dollars. MidAmerican eliminated the following programs:

- Compact fluorescent light bulbs (commonly known as CFLs) in both residential and nonresidential programs;
- Residential New Homes (construction) program;
- Commercial New Construction program; and
- Nonresidential Load Management program.

Additionally, MidAmerican revised its plan and evaluated its revised Plan programs using all cost effectiveness tests endorsed by the National Action Plan for Energy Efficiency (NAPEE) and the National Association of Regulatory Utility Commissioners (NARUC). See Attachment 1, NAPEE cost effectiveness tests. Finally, MidAmerican revised Plan eliminates lost revenues and adds a performance incentive.

MidAmerican has many reasons for implementing energy efficiency programs in South Dakota. The programs are cost-effective; they will create millions of dollars of benefits to South Dakota customers; and they can help MidAmerican and other utilities meet their short- and long-term supply needs.

However, MidAmerican seeks to implement these programs for a simpler reason: customers like them. MidAmerican's Iowa customers have benefited from and come to rely on the programs. The programs help them manage their utility costs and understand their energy usage. Maintaining and promoting customer satisfaction by meeting the energy efficiency needs of our customers is a key driver for MidAmerican in offering energy efficiency programs. MidAmerican is proud of its proven customer satisfaction record. In the J.D. Power and Associates 2008 residential customer satisfaction studies, MidAmerican ranked first in the Midwest region among 15 large electric utilities and tied for first among 21 natural gas utilities. The 2008 natural gas survey, in particular, highlighted the importance of energy efficiency to customer satisfaction with utility providers. Key study findings included:

- "Improvement in satisfaction can be attributed in large part to efforts by gas utility companies to educate customers about energy conservation and environmental issues."
- "Customers who received information from their gas utility companies about energy conservation tips or environmental issues were significantly more satisfied than the average customer."
- "Gas utility companies can positively impact customer satisfaction levels by employing energy conservation communications and initiatives that help customers lower their bills."

- "Working with customers on ways to conserve energy also plays an important role in supporting the responsible use of natural resources, which is also particularly satisfying to customers."

The fact that MidAmerican historically has not offered the programs in South Dakota has created some customer satisfaction challenges. While MidAmerican is regulated separately in Iowa and South Dakota, customers do not always recognize this difference. Media messages cannot be contained within state boundaries and when South Dakota customers become aware of the Iowa programs, they may not understand why the programs are not offered in South Dakota as well.

MidAmerican recommends the following for meeting the energy efficiency needs of its South Dakota customers:

- ***Offer consistent programs.*** MidAmerican's goal is to offer consistent programs across all of its state jurisdictions. This helps to ensure consistent program delivery and to minimize program administrative costs. As with any new venture, it will take time for the South Dakota programs to become established; initially, there may be differences between the South Dakota programs and those currently offered in Iowa and Illinois. However, MidAmerican's long-term goal is to work with each jurisdiction so that programs can be as similar as possible for all customers.
- ***Focus on the customer.*** MidAmerican's programs have been designed to make it easy for customers to participate. MidAmerican has researched the key barriers customers face in adopting energy-efficiency strategies and

developed financial incentives, technical assistance and other program features to overcome these barriers.

- ***Invest in infrastructure.*** MidAmerican attracts customers to the programs by offering financial incentives, but the programs would not be successful without additional investments in program infrastructure. Advertising is needed to increase customer awareness; trade ally management to help local dealers, architects, engineers and other professionals sell the services and benefits of energy efficiency; monitoring and evaluation to track program performance and administrative systems to ensure efficient program operation. By investing in these additional systems, MidAmerican helps ensure that customers enjoy their participation in quality programs.
- ***Federal energy efficiency activities.*** MidAmerican is monitoring federal energy efficiency activities and the potential implications for energy efficiency program funding at the state level. If some federal action appears it may benefit energy efficiency programs in South Dakota, MidAmerican will work with state officials and others to adjust its programs.
- ***Remain flexible.*** While MidAmerican has designed the program requirements to meet the needs of most customers, it also understands that some customers need special services. Program managers work with individual customers to make sure their needs are met.

MidAmerican looks forward to helping customers take advantage of the new South Dakota programs to lower energy costs, improve business competitiveness and help the environment.

1. Overview of Programs

MidAmerican proposes to introduce a comprehensive program portfolio over a three-year period beginning within a few months of South Dakota Public Utility Commission (PUC) approval. Table 1 lists the programs that will be offered.

Table 1
South Dakota Program Implementation Schedule

Program	Marketing Name	Fuel	
		Natural Gas	Electric
Residential			
Residential Equipment		✓	✓
Residential Energy Audit	HomeCheck®	✓	✓
Residential Load Management	SummerSaver℠		✓
Low Income		✓	✓
Nonresidential			
Nonresidential Equipment		✓	✓
Nonresidential Custom	Custom Systems	✓	✓
Small Commercial Energy Audit	BusinessCheck®	✓	✓

Most programs will be offered as joint electric and natural gas programs. For example, MidAmerican will hire one residential audit contractor to serve all of MidAmerican's electric and natural gas customers. However, MidAmerican will only provide rebates for measures that save energy sold by MidAmerican. For example, customers who purchase natural gas only will not be eligible to receive rebates for efficient motors (which save electricity). When appropriate, MidAmerican will seek to work with other South Dakota utilities to share costs and program

resources to make it as easy as possible for South Dakota customers to participate in multi-fuel programs.

MidAmerican has designed a comprehensive program portfolio to meet the varied needs of different customers. The programs offer services to:

- Natural gas and electric customers,
- Residential, commercial, and industrial customers,
- Homeowners, commercial building owners, and tenants,
- Customers in existing and new buildings,
- Customers purchasing new equipment and customers with existing, working equipment,
- Customers making substantial capital investments (such as in new furnaces) and customers making smaller purchases (such as programmable thermostats).

The four residential programs include:

- ***Residential Equipment*** program, which provides rebates to encourage customers to purchase high-efficiency space conditioning and water heating equipment from participating dealers.
- ***Residential Audit*** program (or HomeCheck®), which provides free energy audits, direct installation of simple energy-efficiency measures and rebates for more extensive building shell retrofits.
- ***Residential Load Management*** program (or SummerSaver℠), which provides financial incentives to customers that allow MidAmerican to control their central air conditioning on summer peak days.

- ***Residential Low-Income*** program, which utilizes local community action program agencies to provide free energy audits and free installation of building shell, water heating and lighting measures for low-income customers that qualify for the federal Weatherization Assistance Program.

The three nonresidential programs include:

- ***Nonresidential Equipment*** program, which provides rebates to encourage customers to purchase efficient heating, cooling, lighting, motor and commercial kitchen equipment.
- ***Nonresidential Custom*** program (or Custom Systems), which provides rebates for additional custom measures identified by MidAmerican's nonresidential customers.
- ***Small Commercial Audit*** program (or BusinessCheck®), which serves small business customers by providing energy audits, direct installation of simple energy-efficiency measures and rebates for more extensive projects.

2. Estimated Costs and Benefits

Table 2 lists estimated implementation costs for each program from 2009 to 2011, including breakdowns between natural gas and electric costs as well as between residential and nonresidential costs. MidAmerican proposes investing almost $3.1 million in these programs over the three-year period, including:

- $2.9 million on natural gas programs and $0.2 million on electric programs and

- $2.4 million on residential programs and $0.7 million on nonresidential programs.

Accounting systems will ensure that costs for providing the programs are recovered from the appropriate customers: electric program costs from electric customers and natural gas program costs from natural gas customers; residential program costs from residential customers and nonresidential program costs from nonresidential customers.

Table 3 lists estimated implementation costs by functional category, including the incentives paid directly to program participants as well as the support functions, such as administration and advertising that are necessary to deliver programs. Over two-thirds of natural gas costs and almost three-quarters of electric costs provide direct benefits to customers for energy-efficiency measures, either through incentive payments or through equipment and installation costs that MidAmerican incurs directly.

Table 2
Estimated Budgets by Program

	Natural Gas				Electricity				Total			
	2009	2010	2011	3-year Total	2009	2010	2011	3-year Total	2009	2010	2011	3-year Total
Residential												
Equipment	$360	$363	$468	$1,191	$5	$12	$19	$36	$365	$375	$487	$1,227
Audit	$283	$351	$341	$975	$3	$2	$2	$7	$286	$353	$343	$982
Load Management					$4	$36	$33	$73	$4	$36	$33	$73
Low Income	$17	$26	$46	$89	$1	$0	$1	$2	$18	$26	$47	$91
Total Residential	$660	$740	$855	$2,255	$13	$50	$55	$118	$673	$790	$910	$2,373
Nonresidential												
Equipment	$39	$46	$56	$141	$15	$24	$29	$68	$54	$70	$85	$209
Custom	$45	$51	$51	$147	$3	$7	$6	$16	$48	$58	$57	$163
Audit	$60	$104	$151	$315	$2	$4	$5	$11	$62	$108	$156	$326
Total Nonresidential	$144	$201	$258	$603	$20	$35	$40	$95	$164	$236	$298	$698
Total Budget	**$804**	**$941**	**$1,113**	**$2,858**	**$33**	**$85**	**$95**	**$213**	**$837**	**$1,026**	**$1,208**	**$3,071**

Table 3
Estimated Budgets by Function ($000)

	Natural Gas				Electric				Total			
	2009	**2010**	**2011**	**3-Year Total**	**2009**	**2010**	**2011**	**3-Year Total**	**2009**	**2010**	**2011**	**3-Year Total**
Planning & Design	$254	$12	$13	$279	$7	$0	$0	$7	$261	$12	$13	$286
Administration	$149	$154	$162	$465	$13	$13	$11	$37	$162	$167	$173	$502
Advertising & Promotion	$16	$17	$18	$51	$1	$6	$4	$11	$17	$23	$22	$62
Incentives	$354	$694	$897	$1,945	$11	$43	$61	$115	$365	$737	$958	$2,060
Monitoring & Evaluation	$18	$64	$23	$105	$1	$0	$2	$3	$19	$64	$25	$108
Equipment	$13	$0	$0	$13	$0	$15	$11	$26	$13	$15	$11	$39
Installation	$0	$0	$0	$0	$0	$8	$6	$14	$0	$8	$6	$14
Total Budget	**$804**	**$941**	**$1,113**	**$2,858**	**$33**	**$85**	**$95**	**$213**	**$837**	**$1,026**	**$1,208**	**$3,071**

3. Estimated Energy and Demand Savings

As a result of this investment in program implementation, MidAmerican expects to help South Dakota customers install over 17,000 energy-efficiency measures in their homes and businesses. By 2011, these measures will reduce MidAmerican's annual energy requirements by over 564,000 therms of natural gas and over 1.7 million kilowatt-hours of electricity (see Table 4). These savings represent nearly 1 percent of MidAmerican's annual natural gas sales and annual electricity requirements (i.e., sales plus line losses) in South Dakota. In addition, the measures will reduce MidAmerican's electric peak demand by over 600 kilowatts. Should MidAmerican continue to offer these programs after 2011, these cumulative savings percentages will continue to grow.

Table 4
Cumulative Energy and Demand Savings

	Natural Gas (therms)			Electricity (kWh)			Electricity (kW)		
	2009	**2010**	**2011**	**2009**	**2010**	**2011**	**2009**	**2010**	**2011**
Residential									
Equipment	54,790	151,707	293,011	1,316	20,681	57,721	1	10	28
Audit	25,392	76,694	128,857	2,323	6,856	11,553	1	4	6
Load Management	NA	NA	NA	-	2,037	3,363	-	156	257
Low Income	803	2,643	6,138	-	-	254	-	-	-
Total Residential	80,985	231,044	428,006	3,639	29,574	72,891	2	170	291
Nonresidential									
Equipment	14,573	42,667	77,307	210,333	791,675	1,544,736	40	149	291
Custom	8,704	22,309	36,983	-	40,980	81,960	-	8	16
Audit	1,603	9,018	22,120	169	3,978	10,349	-	1	3
Total Nonresidential	24,880	73,994	136,410	210,502	836,633	1,637,045	40	158	310
Total	**105,865**	**305,038**	**564,416**	**214,141**	**866,207**	**1,709,936**	**42**	**328**	**601**

The installed measures will continue to save customers energy and money for many years. (For example, residential furnaces typically last 17 years before requiring replacement.) 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 10.3 million therms of natural gas and 30.6 million kilowatt-hours of electricity.

4. Cost-Effectiveness

To select programs that are most likely to benefit South Dakota customers, MidAmerican evaluated the cost-effectiveness of each program, and of the portfolio as a whole. MidAmerican applied five cost-effectiveness tests as defined by the National Action Plan for Energy Efficiency (NAPEE)**,** which is endorsed by the U.S. Department of Energy and National Association of Regulatory Utility Commissioners (NARUC). The five cost effectiveness tests include:

Participant Cost (PC) Test: This test measures whether program participants will benefit over the life of installed measures. Programs passing this test lower lifecycle costs for participants as a whole (or for the average participant).

Utility Cost (UC) Test: This test measures program impacts on utility revenue requirements and average bills. Programs passing this test lower the revenue requirements paid by all customers. Since energy efficiency programs don't change the number of utility customers, and since the ratio of revenue requirements to customers represents the average customer bill, programs that pass this test also lower average bills. In states where nonutility parties (e.g., state agencies, third-party program administrators) operate some programs, this test is referred to as the Program Administrator Cost (PAC) test.

Ratepayer Impact Measure (RIM) Test: This test measures program impacts on average rates. Programs passing this test lower average rates. Since all customers pay rates, while only some customers participate in programs, this test is sometimes referred to as the "nonparticipant" test and also as the "no losers" test.

Total Resource Cost (TRC) Test: This test measures program impacts on the total cost of energy in the utility service territory, including costs paid by the utility as well as costs paid by participating customers, and costs paid for end use equipment as well as costs paid for

constructing and operating utility supply resources. Programs passing this test lower total resource costs.

Societal Cost (SC) Test: This test measures program impacts on the utility, state, or nation as a whole. This test is similar to the TRC test, but differs from the TRC test in several key features. The SC test accounts for energy-related externality costs paid indirectly by society, but not directly by utilities or participating customers (e.g., costs of environmental pollution, national security, etc.). The SC test also accounts for tax credits, which can benefit utilities and participating customers, but are still paid by all of society. Finally, the SC test often relies on a lower discount rate, since society shares risks more broadly than individual utilities or participating customers.

Table 5 summarizes the key policy objectives measured by each test. Table 6 presents the key benefits and costs included in each test.

Table 5
Policy Objectives Measured by Cost-Effectiveness Tests

Test	Key Policy Objective
Participant Cost Test	Will the participants benefit over the measure life?
Utility (or Program Administrator) Cost Test	Will utility bills increase?
Ratepayer Impact Measure	Will utility rates increase?
Total Resource Cost Test	Will the total costs of energy in the utility service territory decrease?
Societal Cost Test	Is the utility, state, or nation better off as a whole?

Source: National Action Plan for Energy Efficiency: Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers

Table 6
Key Benefits and Costs Included in Cost-Effectiveness Tests

	Participant Cost (PC)	Utility Cost (UC)	Ratepayer Impact Measure (RIM)	Total Resource Cost (TRC)	Societal Cost (SC)
Benefits					
Avoided energy costs		✓	✓	✓	✓
Avoided capacity costs		✓	✓	✓	✓
Avoided T&D losses		✓	✓	✓	✓
Bill reductions	✓				
Externalities*					✓
Utility incentives	✓				
Tax credits	✓			✓	
Costs					
Incremental measure costs	✓			✓	✓
Utility incentives		✓	✓		
Program overhead costs		✓	✓	✓	✓
Lost revenues			✓		

* MidAmerican assumed the same level of electric avoided cost and natural gas avoided cost externality percentages as mandated in Iowa. Electric avoided cost was increased 10% and natural gas avoided cost was increased 7.5% to account for externalities.

MidAmerican utilizes information from all of the tests both in the process of designing programs and also determining appropriate programs to be included in the Company's South Dakota Plan portfolio. By applying this approach, MidAmerican is able to create the greatest total benefits for all South Dakota customers, and also to create the greatest opportunity for customers to participate in (and benefit from) the programs.

NAPEE has developed an excellent resource guide on energy efficiency cost effectiveness for policy makers: *Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers*. In this

guide, NAPEE identifies how legislatures and regulatory commissions in each state use the tests in regulating energy efficiency programs. This information is summarized in Table 7. Of the 14 states that specify a primary program selection criterion, 10 rely on either the Societal or TRC tests, 3 rely on the UC/PAC test, and 1 relies on the RIM test.

Table 7
Use of Cost-Effectiveness Tests in Program Selection

	PC	UC/PAC	RIM	TRC	SC
Primary Selection Criterion		CT, TX, UT	FL	CA, MA, MO, NH, NM	AZ, ME, MN, VT, WI
Primary or Secondary Consideration	AR, FL, GA, HI, IA, IN, MN, VA	AR, CA, CT, HI, IA, IN, MN, MO, NV, OR, UT, VA, TX	AR, DC, FL, GA, HI, IA, IN, KS, MN, NH, VA	AR, CA, CO, CT, DE, FL, IA, GA, HI, IL, IN, KS, MA, MN, MO, MT, NH, NM, NY, UT, VA	AZ, CO, GA, HI, IA, IN, MA, MN, MT, NV, OR, VA, VT, WI

Source: National Action Plan for Energy Efficiency: Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers

Regarding the proposed South Dakota Plan, MidAmerican believes it is important to review all of the standard cost-effectiveness tests while selecting energy efficiency programs intended to have broad-based appeal to MidAmerican's South Dakota customers. Consideration of the results of the UC/PAC test and RIM test is also important to help ensure that the impacts of program implementation on average utility bills are reasonable.

MidAmerican does not support use of the RIM test as the primary program decision criteria. While the RIM test has sometimes been referred to as the "no losers" test because it requires that no utility customer will pay a higher bill as a result of a program, it has also been termed the "hardly any winners" test because it unreasonably limits the available programs.

If energy efficiency programs are to have a meaningful impact on energy usage (reducing future costs of energy resources), they need to enjoy widespread customer participation. If

MidAmerican limited programs to markets that can support a RIM test; it would be left with no natural gas programs and two small electric programs in South Dakota. And, because the electric programs are so small, it is unclear if they could support the minimum administrative and regulatory overhead required for operation. Even if these programs could stand on their own, participation would only amount to a tiny percentage of MidAmerican's customers (even of MidAmerican's electric customers). Thus, MidAmerican would be faced with the choice of having no winners or hardly any winners. Only Florida uses the RIM test as the primary selection criteria for energy efficiency programs.

MidAmerican believes that a better way to address the issue of increased utility rates to non-participants resulting from energy efficiency program implementation is to attempt to minimize the number of non-participants. To accomplish this, MidAmerican has created programs that provide wide opportunity for customer participation. Participating customers can lower their usage enough to offset the rate increase associated with the programs. For example, if rates increase by 0.5 percent, but participants lower usage by 2 percent, participants lower their bills; and most customers would choose lower bills over lower rates. By providing wide opportunity for participation, MidAmerican makes it possible for more customers to offset the program-related rate increases, and creates more winners. Of course, MidAmerican cannot guarantee that all customers will participate in the programs, and, at least initially, MidAmerican does not expect universal participation. Yet over time, MidAmerican expects most customers to participate, as MidAmerican provides participation opportunities for all customers. MidAmerican's high customer satisfaction ratings, which have been directly linked to its energy efficiency programs, provide evidence that this has been an effective strategy in Iowa.

One approach that MidAmerican uses to increase participation opportunity is to provide a wide array of programs serving different customer segments, including:

- Residential, commercial, and industrial customers,
- Homeowners, commercial building owners, and tenants,
- Customers in existing and new buildings,
- Customers purchasing new equipment and customers with existing, working equipment, and
- Customers making substantial capital investments (such as in new furnaces) and customers making smaller purchases (such as programmable thermostats).

A second approach involves providing dedicated programs to serve customers who—in other service territories—have participated in low numbers. These include a Low Income program to serve the residential customers with the least financial resources, and a Small Commercial Audit program targeting those business customers without staff available to address energy issues outside of their core operations.

As shown in Table 8, by using this program selection approach, MidAmerican is able to provide substantial benefits. Overall, the programs are expected to create net benefits to society – that is, South Dakota's customers and the state's economy – of almost $3 million. The societal benefit-cost ratio for the programs is 1.49. That is, for every dollar invested by customers and MidAmerican in efficient equipment and program costs, almost $1.50 is created in lower utility supply costs and associated externalities.

Table 9 provides additional cost-effectiveness results for each program and each test. All programs pass the participant and societal cost tests. Most programs pass the total resource cost

test or are very close to passing the test. All programs except three pass the utility cost test. Two of these programs, Low Income and Small Commercial Audit, serve customers who will pay for the programs through their rates, but who are less likely to participate without dedicated programs. The third program, Residential Load Management, greatly expands opportunity for program participation to residential electric customers. Only one program passes the RIM test: the Nonresidential Equipment program.

Table 8
Societal Cost-Effectiveness Results

Lifecycle Societal Benefits (NPV)	$ 8,619,153
Lifecycle Societal Costs (NPV)	$ 5,770,305
Net Societal Benefits (NPV)	$ 2,848,847
Benefit-Cost Ratio	1.49

Table 9
Benefit-Cost Ratios for All Tests

	Natural Gas					Electric					Combined				
	PC	**UC**	**RIM**	**TRC**	**SC**	**PC**	**UC**	**RIM**	**TRC**	**SC**	**PC**	**UC**	**RIM**	**TRC**	**SC**
Residential															
Equipment	1.44	2.37	0.66	0.85	1.13	1.02	1.61	0.85	0.86	1.16	1.44	2.35	0.66	0.85	1.13
Audit	28.96	1.18	0.51	1.13	1.54	4.60	1.73	0.93	1.46	2.11	28.22	1.18	0.51	1.13	1.55
Load Management	-	-	-	-	-	-	0.39	0.38	0.87	1.14	-	0.39	0.38	0.87	1.14
Low Income	-	0.75	0.41	0.75	1.05	-	0.24	0.22	0.24	0.37	-	0.74	0.41	0.74	1.04
Total Residential	2.04	1.79	0.60	0.91	1.22	1.28	0.58	0.51	0.89	1.18	2.03	1.66	0.60	0.91	1.22
Nonresidential															
Equipment	1.93	5.29	0.78	1.33	1.77	2.07	16.00	2.37	4.24	5.94	1.98	8.80	1.30	2.25	3.09
Custom	2.59	2.39	0.67	1.21	1.61	1.72	3.44	1.51	1.97	2.65	2.52	2.49	0.73	1.27	1.70
Audit	-	0.74	0.44	0.80	1.13	-	0.78	0.78	0.64	0.91	76.29	0.74	0.45	0.79	1.11
Total Nonresidential	2.47	2.21	0.67	1.16	1.57	2.03	11.99	2.27	3.86	5.38	2.35	3.57	0.99	1.73	2.37
Total	**2.13**	**1.88**	**0.62**	**0.96**	**1.29**	**1.93**	**3.59**	**1.60**	**2.75**	**3.80**	**2.11**	**2.07**	**0.70**	**1.10**	**1.49**

PC=Participant Cost Test
UC=Utility Cost Test
RIM=Ratepayer Impact Measure Test
TRC=Total Resource Cost Test
SC=Societal Cost Test

The cost-effectiveness results presented in this section represent only the costs and benefits associated with participants added during the term of the proposed plan, i.e., 2009-11[1]. To the extent that programs are continued after 2011, they will provide additional net benefits.

5. Cost-Recovery Plan

MidAmerican is requesting approval of a cost-recovery process to recover the costs for implementing these programs, including a performance incentive program to reward MidAmerican shareholders for meeting predefined performance targets. Section E of this filing provides a detailed discussion of the cost-recovery proposal and calculations. Table 10 below presents the energy-efficiency cost recovery factors that MidAmerican proposes for 2009.

Table 10
Proposed 2009 Cost-Recovery Factors

	Natural Gas	Electric
Residential	$0.02705 per therm	$0.00049 per kWh
Nonresidential	$0.00788 per therm	$0.00018 per kWh

The resulting residential customer bill impacts from the application of the residential factors in Table 10 for 2009 are $8.70 for residential natural gas service customers and $3.92 for residential electric service customers. The residential gas cost recovery factor for 2010 will decrease to $.01369 per therm since costs will be recovered over a full calendar year, including the higher use winter months, with a resulting average residential bill impact of $ 9.81. The residential electric cost recovery factor will increase to $.001237 per kWh with an average annual bill impact of $15.12 due to the increased electric budget for 2010.

[1] Cost-effectiveness for the residential load management program was analyzed using participants added from 2010-2014, to allow the program to reach full saturation.

6. Implementation Issues

MidAmerican's experience implementing energy-efficiency programs has helped it identify a number of implementation issues that may arise as the programs are introduced in South Dakota. In this section, MidAmerican describes these key issues and, for each, makes a recommendation about how to manage the issues in South Dakota. The issues include:

a. Managing participation and budgets,

b. Continuous program and process improvement,

c. Reporting and

d. Coordinating with other utilities.

a. 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 used its Iowa experience, augmented by available South Dakota market information, to estimate South Dakota participation, assuming that it will take two or three years for the South Dakota programs to reach full participation rates.

For any program and any year, participation and spending may vary substantially from these estimates. Pent up demand or general customer interest may cause some programs to take off right away and not require the two- to three-year growth period assumed in the budget estimates. Other programs may take longer to become established. For example, in Illinois, residential energy audits were immediately popular with customers and MidAmerican performed over 1,400 audits in just 7 months. Conversely, some of our nonresidential programs require greater lead times for the completion of projects, and we expect these programs to grow more gradually over time.

Other factors beyond MidAmerican or customer control can have substantial impacts on program participation and budgets. For example, MidAmerican has offered a residential audit program in Iowa for over 17 years. While participation in most years is stable and somewhat predictable, events such as extreme weather, high energy prices and media attention can lead to large participation swings. In a typical heating season, MidAmerican completes around 6,000 audits; after the high natural gas prices and media attention that followed the Gulf hurricanes in late 2005, MidAmerican completed almost 10,000 audits in the 2005-06 winter season.

Additional factors also may affect program participation and budgets. For example, the general health of the economy and access to credit impacts the ability of customers to finance any share of a project. The realities of such conditions may result in residential and business customers choosing to defer major purchases of heating, ventilating and air conditioning equipment.

MidAmerican makes the following recommendations for managing the issue of uncertain program participation levels in South Dakota:

- ***Ensure program stability.*** MidAmerican recommends that programs continue to provide stable, predictable rebates to customers and trade allies, even if program spending in a given year exceeds the estimates provided in this filing. MidAmerican recommends against abruptly stopping individual programs as budgets run out. Experience has shown that stopping programs mid-year leads customers and trade allies to lose faith in the programs, causing participation in the programs (and customer satisfaction) to deteriorate.

- ***Manage total budgets rather than individual program budgets.*** MidAmerican has developed a portfolio of programs to implement in South Dakota. The portfolio effect can help offset budget swings in individual programs to the extent that some programs spend below their budget estimates while others exceed budgeted levels. MidAmerican has proposed a cost- recovery approach that allocates costs between electric and natural gas customers and residential and nonresidential customers. If individual programs exceed budgets, but other programs under-spend, in some cases the overall class cost-recovery factors could still remain at levels approved as part of this filing.
- ***Adapt program operations.*** While some of the key factors that drive program participation are beyond MidAmerican's control, MidAmerican also has some tools at its disposal to affect participation levels. For example, MidAmerican can adjust its promotional activities, increasing press coverage and targeted advertising when participation is below goals and decreasing these activities when participation exceeds goals. In addition, MidAmerican can adjust eligibility requirements for certain measures and programs to help spur or dampen participation. For example, MidAmerican proposes to introduce the South Dakota Residential Audit program with eligibility limited to houses built prior to Dec. 31, 1989. If participation lags for this program, MidAmerican may change eligibility to include newer homes and more customers.

- ***Request approval from the PUC if an overall budget increase is needed.*** If, despite adaptations to program operations, an increase in the total plan budget is needed to continue program operation, MidAmerican will request PUC approval for a budget increase. MidAmerican will do its best to anticipate any such need and make its request promptly. MidAmerican believes it is important that programs are continuously available and may request expedited PUC consideration of an increase if necessary.

b. Continuous Program and Process Improvement

MidAmerican has developed programs for South Dakota based on programs that have evolved in Iowa over the last 17 years. The program descriptions provided in Sections B and C of this filing describe the measures, rebates, promotional strategies and other features that are currently used to successfully implement programs.

MidAmerican's programs have improved over time and MidAmerican expects continuous improvement in the future. For example, over the last few years, MidAmerican has:

- Changed qualifying efficiencies and rebate levels for residential and small commercial air conditioning equipment to reflect changes in federal equipment-efficiency standards,
- Increased rebates for natural gas heating and water heating equipment as well as residential insulation to help customers respond to sharp increases in natural gas prices, and
- Added a range of measures to the Nonresidential Equipment program to help business customers improve the efficiency of commercial kitchen equipment.

MidAmerican makes the following recommendations for ensuring continuous program and process improvement in its South Dakota programs:

- ***Create periodic long-term plans.*** MidAmerican's current proposal for South Dakota covers the years 2009 through 2011. Upon successful completion of the initial plan, MidAmerican proposes to file a plan update in 2011 to recommend new program features and to project program costs and savings for an additional period.
- ***Perform annual research and development.*** MidAmerican performs an annual research and development effort to review new energy-efficiency technologies; program measures and features offered by utilities in other jurisdictions; changes in government standards for equipment and buildings and other issues that affect program operations. From this annual effort, MidAmerican may propose changes in measure offerings, eligibility requirements, rebate levels and other program features for the coming year. This annual effort will allow programs to continuously improve and adapt to current market conditions.
- ***Perform periodic process evaluations.*** Periodically, MidAmerican performs formal process evaluations to help ensure continuous improvement of its programs. Process evaluations use independent evaluators to capture feedback from program participants, other customers, trade allies, program contractors and MidAmerican staff. The evaluators use the information they collect to structure specific recommendations for program improvements.

c. Reporting

MidAmerican believes it is important to provide the South Dakota Public Utilities Commission (PUC) and the PUC staff with timely reports on program results but also recognizes a need to balance the costs of preparing reports with the benefits those reports provide. MidAmerican recommends the following reporting process for this South Dakota plan:

- ***File annual reports.*** MidAmerican proposes to file an annual report to the PUC each year that details program results for the previous calendar year and lays out key changes to be implemented in the current year, including, where appropriate, changes to participation and budgets. For example, the 2010 report will provide results for 2009 programs and describe changes planned for 2010.

  In the annual report, MidAmerican will provide reviews of each individual program, outlining key quantitative results (e.g., participation levels) for the previous year, key successes and challenges addressed in the previous year and key changes to be implemented in the current year.

  MidAmerican also will provide data tables across all programs that outline:

  - Spending by program, fuel and functional cost category,
  - Energy and demand savings, by program and fuel, and
  - Cost-effectiveness results, by program.

- ***Conduct formal update meetings.*** MidAmerican proposes to meet with the PUC staff once each year to review program operations for the current year and preview expected program changes for the coming year. At the

meeting, MidAmerican will provide a formal presentation to review each program and other key issues and also allow time for discussion with staff.

- ***Reconcile cost-recovery charge.*** MidAmerican proposes to make annual filings requesting PUC approval to revise the cost recovery factor based on the new year's program budget as approved in this plan. MidAmerican will separately make a filing that reconciles the cost-recovery charge and implements the performance incentive award (if any) based on the prior year's program results. MidAmerican will request PUC approval to recover reconciliation and incentive award along with the new cost recovery factors.
- ***Continue other informal communications.*** MidAmerican encourages ongoing informal communication with the PUC staff to keep them informed of program operations and decisions as other issues arise. While MidAmerican maintains sole responsibility for program management, it prefers to make management decisions that incorporate feedback from the staff, benefiting from staff experience and insights and limiting the possibility for misunderstandings.

d. Coordinating With Other Utilities

MidAmerican serves approximately 82,000 customers in South Dakota, including almost 81,000 natural gas customers, slightly less than 4,000 electric customers and over 2,000 combined-service customers. MidAmerican's programs address electric as well as natural gas measures, but most of MidAmerican's customers will only be eligible for the natural gas measures. This situation will present some challenges for program implementation, including

communicating clearly to customers to make sure they understand program eligibility requirements; delivering programs in an efficient and cost-effective manner, even when only one fuel is covered and helping customers that are interested in implementing comprehensive energy-efficiency strategies.

In Iowa, MidAmerican works jointly with the other investor-owned utilities and some of the municipal utilities to coordinate services and rebates. For example, in the residential audit program, the utilities share a common audit contractor. The utility providing the heating fuel pays for the audit, the auditor coordinates installation and specification of both electric and natural gas efficiency measures and the utilities work together to ensure that the appropriate utility funds the appropriate measures.

While no joint agreements are included in this filing, MidAmerican will continue to explore possibilities for coordination with other South Dakota utilities. To the extent that MidAmerican can work with other utilities in South Dakota to serve joint customers, it can increase the cost-effectiveness of the proposed energy efficiency programs.

7. Organization of This Report

The remainder of this filing provides additional detail on the programs and their expected results. After this introduction, the filing includes the following sections:

- Section B describes the four residential programs.
- Section C describes the three nonresidential programs.
- Section D describes support functions required to deliver the programs, including a monitoring and evaluation plan and an accounting plan.
- Section E provides a cost-recovery and performance incentive proposal, addressing the regulatory framework for cost-recovery, proposing

language for cost-recovery riders and estimating natural gas and electric cost recovery factors.