

Residential Equipment Program

1. Program Description

This program promotes the purchase of high-efficiency equipment by residential customers in new and existing housing. The program provides customers with rebates to offset the higher purchase cost of efficient equipment, as well as information on the features and benefits of efficient equipment. Targeted equipment includes air conditioners, heat pumps, furnaces, boilers and water heaters. The program is delivered in partnership with a network of HVAC contractors and administered by a program contractor. MidAmerican will implement the program in South Dakota beginning in 2008.

2. Operations

This program is dealer-driven; that is, it relies on equipment dealers to promote the program, help customers understand the features and benefits of high-efficiency equipment, help customers select high-efficiency equipment and help customers fill out program applications. Customers are welcome to participate in the program on their own, but most dealers are well versed in the program and happy to help customers navigate the program process.

The program is fairly streamlined. Key steps in program participation include:

- Completing the program application,
- Ensuring that equipment meets program qualifications,
- Processing rebate checks for qualified equipment and
- Verifying equipment installation for a sample of participants.

The program contractor provides a range of support functions to manage the program, including processing applications, tracking program data, answering questions from dealers and

customers, verifying equipment installations and coordinating rebate distribution with MidAmerican's accounts payable department.

MidAmerican staff and additional contractors also provide additional support in the form of research and development into new measures, promotion and monitoring and evaluation.

3. Value Proposition

Customers participating in the program receive three main benefits.

- They *save money* in the short term through rebates and in the long term through lower utility bills.
- They *feel secure* knowing that they have purchased a product endorsed by MidAmerican, since the program provides the information necessary to make the best purchase decision.
- They *help out* by reducing energy use, its associated environmental impact and the need to build new power plants.

4. Customer Targets

This program targets residential customers and landlords of residential customers in existing housing that purchase the equipment promoted through the program. The program targets customers replacing existing equipment, but also is available to customers purchasing equipment for the first time, as well as customers in new construction who are not interested in participating in the comprehensive new construction program.

The program will be available throughout MidAmerican's South Dakota service territory. However, the equipment must be fueled by gas and/or electricity supplied directly by MidAmerican.

Landlords installing larger equipment for master-metered multifamily buildings may use available nonresidential programs for technical and financial assistance.

Table 1 outlines customer eligibility requirements.

**Table 1
Customer Eligibility Parameters**

	Electric Equipment	Gas Equipment
Customer Class	Building on residential electric rate	Building on residential gas rate
Customer Status	Customer homeowners; Landlords of customers	Customer homeowners; Landlords of customers
Building Type	Single-family; Multifamily (served by residential rate); Mobile home	Single-family; Multifamily (served by residential rate); Mobile home
Building Vintage	New or existing construction	New or existing construction
Geography	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota gas territory

5. Trade Ally Targets

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

- HVAC dealers,
- Plumbers and
- Large retail outlets (such as Lowe's and Home Depot).

6. Eligible Measures

Attachment B1-1 provides the rebates schedule for MidAmerican's 2007 Residential Equipment program. MidAmerican expects the equipment and eligibility requirements for the South Dakota program to follow this same schedule. MidAmerican also plans to offer rebates for high-efficiency electric water heaters. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and eligibility levels in the future as market conditions change.

7. Financial Incentives

The program provides rebates, defined on a per-device basis, to program participants installing qualifying equipment. For some equipment, the rebate will be a fixed amount per device while, for other equipment, the rebate will increase with increasing equipment efficiency. MidAmerican expects the financial incentives for the South Dakota program to follow the schedule provided in Attachment B1-1. However, MidAmerican performs an annual review of qualifying equipment and reserves the right to adjust measures and rebate levels in the future as market conditions change.

8. Promotion

This program will rely primarily on point-of-sale dealer information to promote the program. MidAmerican will develop a brochure that outlines the program's features, benefits, eligibility requirements and financial incentives, and send copies to targeted trade allies. In addition, MidAmerican will highlight the program in bill inserts provided to all residential customers and conduct limited newspaper and Internet advertising.

9. Participation

Table 2 provides program participation assumptions.

**Table 2
Participation**

	2008	2009	2010
Electric Measures			
Central Air Conditioners	17	21	25
Air-Source Heat Pumps	2	3	3
Geothermal Heat Pumps	1	2	2
Geothermal Ground Loops	1	2	2
Desuperheater Water Heaters	1	2	2
Room Air Conditioners	1	2	2
Electric Water Heaters	7	9	11
Natural Gas Measures			
Furnaces	880	1,091	1,314
Boilers	13	16	19
Gas Water Heaters	165	205	247

10. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

**Table 3
Cumulative Energy and Demand Savings**

	2008	2009	2010
Electric Impacts			
Annual Energy (kWh)	16,114	45,497	75,648
Peak Demand (kW)	6	14	23
Natural Gas Impacts			
Annual Energy (therms)	75,530	169,170	281,890
Peak-Day Demand (therms)	1,090	2,450	4,080

11. Budget

Table 4 provides program budget assumptions.

**Table 4
Budget**

	2008	2009	2010
Electric Budget			
Planning & Design	\$2,000	\$0	\$0
Administration	\$2,000	\$2,000	\$2,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$8,000	\$12,000	\$13,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Electric Total	\$12,000	\$14,000	\$15,000
Natural Gas Budget			
Planning & Design	\$39,000	\$5,000	\$5,000
Administration	\$58,000	\$60,000	\$61,000
Advertising & Promotion	\$23,000	\$23,000	\$24,000
Customer Incentives	\$272,000	\$345,000	\$425,000
Monitoring & Evaluation	\$6,000	\$6,000	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Natural Gas Total	\$398,000	\$439,000	\$521,000
Total Budget			
Planning & Design	\$41,000	\$5,000	\$5,000
Administration	\$60,000	\$62,000	\$63,000
Advertising & Promotion	\$23,000	\$23,000	\$24,000
Customer Incentives	\$280,000	\$357,000	\$438,000
Monitoring & Evaluation	\$6,000	\$6,000	\$6,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Total	\$410,000	\$453,000	\$536,000

12. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

**Table 5
Cost-Effectiveness Results**

Lifecycle Societal Benefits (NPV)	\$ 2,221,507
Lifecycle Societal Costs (NPV)	\$ 1,468,873
Net Societal Benefits (NPV)	\$ 752,634
Benefit-Cost Ratio	1.51

Attachment B1-1

2007 Iowa

Residential Equipment Rebate Schedule

Natural Gas Furnace Rebates

AFUE	REBATE AMOUNT
92%	\$250
93%	\$275
94%	\$300
95%	\$325
96%	\$350 (max. rebate)

Natural Gas Boiler Rebates

AFUE	REBATE AMOUNT
85-89.9%	\$100
90%	\$200
91%	\$250
92%	\$300
93%	\$350
94%	\$400 (max. rebate)

Air Conditioner Rebates

SEER	REBATE AMOUNT
14	\$200
15	\$300
16	\$400 (max. rebate)

Rebate Schedule

EQUIPMENT TYPE	ENERGY-EFFICIENCY RATING	REBATE AMOUNT	TERMS AND CONDITIONS
Natural Gas Furnaces	92% AFUE or greater	\$250 + (\$25 x (AFUE-92))	Incentives calculated in increments of .1 AFUE; Maximum rebate \$350
Natural Gas Boilers	85 - 89.9% AFUE 90% or greater	85 - 89.9% - \$100 90% or greater: \$200 + (\$50 x (AFUE-90))	Incentives calculated in increments of .1 AFUE; Maximum rebate \$400
Natural Gas Water Heaters	< 40 gal: 0.64 EF or greater 40-59 gal: 0.62 EF or greater >=60 gal: 0.85 TE or greater	\$50	EF: Energy Factor TE: Thermal Efficiency
Window Air Conditioners 5,000-7,999 BTU 8,000-13,999 BTU 14,000-19,999 BTU >=20,000 BTU	ENERGY STAR® EER >=10.7 EER >=10.8 EER >=10.7 EER >=9.4 EER	\$50	Must be ENERGY STAR-rated
Central Air Conditioners	14 SEER or greater	\$200 + (\$100 x (SEER-14))	Must install a new matched condenser & coil; Incentives calculated in increments of .1 SEER; Maximum rebate \$400
Air-to-Air and Add-On Heat Pumps	>=14 SEER and >=8.5 HSPF	\$400 + (\$100 x (SEER-14)); Max \$600	Minimum 18,000 Btu/unit; Incentives calculated in increments of .1 SEER
	>=14 SEER and <8.5 HSPF	\$200 + (\$100 x (SEER-14)); Max \$400	HSPF: Heating Seasonal Performance Factor
Ground-Source Heat Pumps			Rebates are per home and not per heat pump. Rebates are for single-family homes only; please call for rebate information on multifamily homes.
New Systems Closed loop Open system Replacement Equipment GSHP Desuperheaters	3.3 COP and 14.1 EER 3.6 COP and 16.2 EER 3.3 COP and 14.1 EER	\$2000/home \$1000/home \$1000/home \$100/home	Equipment and new ground loop installation only

All units must be rated by the Air Conditioning and Refrigeration Institute or the Gas Appliance Manufacturers Association.

PARTICIPATION GUIDELINES

Participating in the EnergyAdvantage® Residential Equipment program is easy. After installing qualifying equipment, simply submit a completed Equipment Rebate Application and detailed invoice to MidAmerican for approval. Your heating and cooling dealer has a supply of Equipment Rebate Applications and will participate in its completion. Your application must be postmarked by Jan. 31, 2008. Equipment included in the EnergyAdvantage New Homes program comprehensive incentive is not eligible for additional incentives in the Residential Equipment program. For more information, please call 800-894-9599.

DISCLAIMER: MidAmerican does not guarantee that installation and operation of energy-efficient equipment will result in reduced usage or in cost savings. The manner in which a customer uses and maintains energy-efficient equipment affects potential cost savings. MidAmerican makes no warranties, expressed or implied, with respect to any equipment purchased or installed, including, but not limited to, any warranty of merchantability or fitness for a particular purpose. In no event shall MidAmerican be held liable for any incidental or consequential damages or injuries resulting from defective equipment or installation. MidAmerican reserves the right to cancel or change these programs at any time. MidAmerican's acceptance of this application does not guarantee payment of rebate or acceptance of financing.



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