

Residential Low-Income

1. Program Description

This program provides financial incentives and education to encourage energy efficiency in existing low-income housing. The program will provide funding to the South Dakota Department of Human Services (DHS) to supplement its existing efforts delivering the federally funded Weatherization Assistance Program (WAP). The DHS employs local community action program (CAP) agencies and other subcontractors to deliver program services.

2. Operations

The program will work through DHS's existing network of community action program (CAP) agencies, which qualify households and deliver services. MidAmerican will work with DHS and the agencies to define energy-efficiency measures to be qualified and installed through the program. The agencies will provide free energy audits to identify appropriate measures as well as free on-site installation of the measures themselves. Measures will address building shell and water heating.

Key steps the CAP agencies will take to manage program participation include:

- Promoting the program,
- Qualifying customers for participation,
- Identifying appropriate cost-effective energy-efficiency measures,
- Administering and managing the installation of qualifying measures,

- Providing program data to the company within the applicable timeframe and
- Cooperating with program evaluation efforts.

3. Value Proposition

Customers participating in the program receive three main benefits:

- Trustworthy energy-savings recommendations from trained auditors,
- Immediate savings through the direct installation of infiltration, insulation, water heating and other energy-saving measures and
- Significant savings, increased comfort and increased property values through rebates on insulation and other efficiency projects.

4. Customer Targets

- To participate in the program, households must satisfy the following criteria:
- Qualify for income and other guidelines of South Dakota's WAP,
- Receive primary heating fuel from the company and
- Reside in South Dakota.

5. Trade Ally Targets

Beyond the CAP agencies and their equipment suppliers, there are no additional trade allies supporting this program.

6. Eligible Measures

MidAmerican will work with the CAP agencies to define a set of cost-effective energy- efficiency measures to include in the program. At this point, MidAmerican expects measures to include insulation, infiltration and water heat measures (low-flow showerheads, faucet aerators, and pipe insulation).

7. Market Barriers

Table 1 presents the key market barriers to a successful Low-Income program, as well as strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

Table 1
Market Barriers and Strategies

Market Barriers	Program Strategies
Higher initial cost of energy-efficient equipment	Provide direct installation of low-cost measures; Provide free weatherization and equipment measures;
Customers reluctant to ask for help	Work through CAP agencies, which have existing relationships with customers; Provide appropriate program qualification and implementation process

8. Financial Incentives

Table 2 includes a subset of the schedule that MidAmerican uses in its Iowa program to reimburse CAP agencies for measures expected to be implemented in South Dakota. MidAmerican will work with DHS and the CAP agencies to develop a similar schedule for the South Dakota program. However, MidAmerican performs an annual review of rebate levels and performance criteria and may adjust rebates in the future as

market conditions change.

MidAmerican's intent is to cover 100 percent of the costs required to install eligible measures and also to cover the administrative costs required by DHS and the agencies to operate the program. MidAmerican will require reporting and documentation of weatherized homes so that energy savings can be tracked and recorded.

Table 2
Iowa Reimbursement Limits for Low-Income Measures

Measure	Minimum Efficiency Level and Performance Criteria (if applicable)	Reimbursement Limit
Low-flow showerheads	2.0 GPM	\$10
Faucet aerators	1.5 GPM Brass with chrome finish	\$3
Pipe insulation	Rigid 0.5" foam with 0.75" diameter	\$3
Insulation measures	Includes wall, attic, floor or foundation and band joist insulation or a combination thereof*	\$3,000
Infiltration measures	Attic bypass sealing, weather stripping, door sweeps and thresholds, caulking, foam sealant and attic access work	\$500
General repairs	In support of successful application of efficiency measures	\$300

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

9. Participation

Table 3 provides program participation assumptions.

**Table 3
Participation**

	2009	2010	2011
Total Households	5	10	16
Electric Measures			
Electric Customers*	-	-	1
Natural Gas Measures			
Gas Customers	5	10	16

*Electric customers are expected to have gas heat, but electric cooling, lighting and appliances.

10. Energy and Demand Savings

Table 4 provides energy and demand savings goals.

**Table 4
Cumulative Energy and Demand Savings**

	2009	2010	2011
Electric Impacts			
Annual Energy (kWh)	-	-	254
Peak Demand (kW)	-	-	0
Natural Gas Impacts			
Annual Energy (therms)	803	2,643	6,138
Peak-Day Demand (therms)	11	36	83

11. Budget

Table 5 provides program budget assumptions.

Table 5
Budget

	2009	2010	2011
Electric Budget			
Planning & Design	\$0	\$0	\$0
Administration	\$1,000	\$0	\$0
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$0	\$0	\$1,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Electric Total	\$1,000	\$0	\$1,000
Natural Gas Budget			
Planning & Design	\$3,000	\$0	\$1,000
Administration	\$9,000	\$12,000	\$16,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$5,000	\$14,000	\$29,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Natural Gas Total	\$17,000	\$26,000	\$46,000
Total Budget			
Planning & Design	\$3,000	\$0	\$1,000
Administration	\$10,000	\$12,000	\$16,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$5,000	\$14,000	\$30,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Total	\$18,000	\$26,000	\$47,000

12. Cost-Effectiveness Results

Table 6 provides program cost-effectiveness results.

Table 6
Cost-Effectiveness Results

Test	B/C Ratio
Participant	N/A
Utility	0.74
Ratepayer Impact Measure	0.41
Total Resource	0.74
Societal	1.04