

Nonresidential Equipment

1. Program Description

This program promotes the purchase of high-efficiency equipment by commercial and industrial customers in both existing and new facilities. It offers rebates to offset the higher purchase cost of efficient equipment and is organized into five program components for delivery:

- Heating, ventilation and air conditioning (HVAC)
- Lighting
- Motors and drives
- Commercial kitchen equipment
- Other (including building insulation and additional equipment not covered by the other components)

The program is delivered in partnership with a network of trade allies specifying, selling and installing qualified equipment. The program targets replacement and first-time purchases, but also is available to customers making retrofit installations. Participation is largely dealer-driven; that is, equipment dealers up-sell customers to energy-efficient measures when they are in the market to buy equipment. The program also utilizes a program contractor to provide support functions.

2. Operations

This program relies primarily on equipment dealers that sell qualifying measures to deliver the program. Dealers promote the program, help customers understand the

features and benefits of qualifying equipment specify and install equipment and help customers fill out program applications.

The program is fairly streamlined. Key steps include:

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

The program will employ a program contractor to provide a range of support functions, including processing applications, tracking program data, answering questions from dealers and customers, verifying equipment installations and processing rebates. MidAmerican energy efficiency staff provide overall strategic direction for the program, and – supported by additional contractors – research and development, promotion, trade ally support, evaluation and other administrative functions.

3. Value Proposition

Customers participating in the program receive three main benefits:

- The process is *simple and straightforward*. Equipment rebates are accessible to any qualifying customer for any qualifying equipment.
- Customers *save money* in the short term through rebates and in the long term through lower utility bills.
- Customers *receive reliable advice* about energy-efficient equipment from trade allies knowledgeable about program measures and procedures.

4. Customer Targets

This program targets all nonresidential customers as well as building owners and property managers of nonresidential facilities. In addition, landlords installing larger equipment for master-metered multifamily buildings may use this program. The program is available to customers replacing existing equipment or purchasing equipment for the first time, as well as to customers retrofitting existing, working equipment. Program measures must save energy supplied directly by MidAmerican. Transportation gas customers with daily metering are ineligible for gas measures; however, customers with monthly metering under the Monthly Metered Transportation Service gas tariff are eligible for energy efficiency incentives.

Table 1 outlines customer eligibility requirements.

**Table 1
Customer Eligibility Parameters**

| | Electric Equipment | Natural Gas Equipment |
|-------------------------|--|--|
| Customer Class | Nonresidential electric rates | Nonresidential natural gas rates; Gas transportation customers with daily metering are ineligible |
| Customer Status | Building or business owners; Landlords of customers | Building or business owners; Landlords of customers |
| Business Type | All | All |
| Building Type | All | All |
| Building Vintage | Existing and new construction | Existing and new construction |
| Geography | Installed in MidAmerican South Dakota electric territory | Installed in MidAmerican South Dakota gas territory |
| Size | All | All |

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

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

6. Eligible Measures

Table 2 provides the categories of measures that MidAmerican expects to include in the Nonresidential Equipment program. For each category, MidAmerican will develop minimum eligibility requirements, leveraging ENERGY STAR[®] guidelines where appropriate. In addition to these measures, MidAmerican will offer a supplementary

rebate for installation of heating and cooling equipment that meets industry-accepted standards for quality installation. MidAmerican performs an annual review of qualifying equipment and may adjust measures and eligibility levels in the future as market conditions and equipment standards change.

**Table 2
Types of Eligible Equipment**

| HVAC | Lighting | Motors | Commercial Kitchen | Other |
|--|---|---|--|---|
| Unitary air conditioners; Chillers; Room air conditioners; Air-source heat pumps; Ground-source heat pumps; Water-source heat pumps; Natural gas furnaces; Natural gas boilers; Natural gas water heaters; Programmable thermostats; Quality installations | T-5 fixtures; T-8 fixtures; Pulse-start metal halide fixtures; LED exit signs; Occupancy sensors; | Premium efficiency motors; Variable-speed drives | Hot food holding cabinets; Fryers; Commercial refrigerators; Ice makers; Dishwashers; Commercial freezers | Wall insulation; Ceiling insulation; |

7. Market Barriers

Table 3 presents the key market barriers to a successful nonresidential equipment program, as well as the strategies the program uses to address each barrier. Note these program strategies can only partially offset the identified barriers.

**Table 3
Market Barriers and Strategies**

| Market Barriers | Program Strategies |
|---|---|
| Higher first cost of energy-efficient equipment | Offer rebates; Educate customers on the long-term energy cost savings of higher efficiency equipment |
| Time required to fill out rebate forms | Provide simple rebate forms through a variety of media (mail-in, online fillable forms); |
| Lack of customer awareness | Program promotion/advertising; Dealer and service provider outreach |
| Customers don't look for qualifying measures | Trade ally training to help customers quickly identify appropriate measures and products; In-store brochures and other materials such as rebate application forms. |
| Low dealer awareness | Ongoing dealer communications and outreach |
| Trade allies not up-selling to high-efficiency equipment | Provide trade ally training and outreach to explain the benefits of selling higher efficiency equipment; |
| Lack of availability of premium equipment | Trade ally outreach |
| Customers don't understand the long-term value of high-efficiency equipment | Train trade allies to explain life-cycle costs to customers; |
| Landlord-tenant problem resulting from split-incentives | Offer higher rebates for tenant-occupied space |

8. Financial Incentives

The program provides rebates to program participants installing qualifying equipment. Rebates are defined in units appropriate to each measure; most rebates are defined per device, but others are defined per unit of equipment size (e.g., per Btu of heating capacity for large boilers) or with increasing levels for equipment with higher efficiency. Additional incentives will encourage quality installation practices for specific heating and cooling equipment.

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

9. Promotion

This program relies primarily on point-of-sale dealer information for promotion. MidAmerican will meet with targeted trade allies to promote the program and also distribute brochures that outline the program's features, benefits, eligibility requirements and financial incentives. MidAmerican will have separate sales brochures for each program component. The program will also be promoted through bill inserts and on a dedicated Web page on MidAmerican's corporate Web site.

10. Participation

Table 4 provides program participation assumptions.

**Table 4
Participation**

| | 2009 | 2010 | 2011 |
|------------------------------|------|------|------|
| Electric Measures* | | | |
| HVAC | | | |
| Air Conditioners/Heat Pumps | 4 | 10 | 13 |
| Quality Installations | - | 1 | 2 |
| Thermostats | 1 | 2 | 3 |
| Lighting | | | |
| Fluorescent Fixtures | 133 | 312 | 379 |
| Metal Halide Lamps/Fixtures | 4 | 8 | 11 |
| Traffic Light Fixtures | 6 | 11 | 9 |
| Motors | | | |
| Efficient Motors | 1 | 3 | 4 |
| Adjustable-Speed Drives | 1 | 3 | 4 |
| Natural Gas Measures* | | | |
| Furnaces | 37 | 83 | 100 |
| Boilers | 4 | 6 | 7 |
| Quality Installations | - | 21 | 60 |
| Water Heaters | 3 | 5 | 5 |
| Thermostats | 22 | 33 | 39 |

*Other measures are eligible and are likely to also occur in South Dakota.

11. Energy and Demand Savings

Table 5 provides energy and demand savings goals.

**Table 5
Cumulative Energy and Demand Savings**

| | 2009 | 2010 | 2011 |
|----------------------------|---------|---------|-----------|
| Electric Impacts | | | |
| Annual Energy (kWh) | 210,333 | 791,675 | 1,544,736 |
| Peak Demand (kW) | 40 | 149 | 291 |
| Natural Gas Impacts | | | |
| Annual Energy (therms) | 14,573 | 42,667 | 77,307 |
| Peak-Day Demand (therms) | 169 | 500 | 910 |

12. Budget

Table 6 provides program budget assumptions.

Table 6
Budget (\$000)

| | 2009 | 2010 | 2011 |
|---------------------------|-----------------|-----------------|-----------------|
| Electric Budget | | | |
| Planning & Design | \$5,000 | \$0 | \$0 |
| Administration | \$2,000 | \$3,000 | \$2,000 |
| Advertising & Promotion | \$0 | \$0 | \$0 |
| Customer Incentives | \$8,000 | \$21,000 | \$27,000 |
| Monitoring & Evaluation | \$0 | \$0 | \$0 |
| Equipment | \$0 | \$0 | \$0 |
| Installation | \$0 | \$0 | \$0 |
| Electric Total | \$15,000 | \$24,000 | \$29,000 |
| Natural Gas Budget | | | |
| Planning & Design | \$14,000 | \$0 | \$0 |
| Administration | \$3,000 | \$3,000 | \$3,000 |
| Advertising & Promotion | \$1,000 | \$1,000 | \$1,000 |
| Customer Incentives | \$20,000 | \$40,000 | \$51,000 |
| Monitoring & Evaluation | \$1,000 | \$2,000 | \$1,000 |
| Equipment | \$0 | \$0 | \$0 |
| Installation | \$0 | \$0 | \$0 |
| Natural Gas Total | \$39,000 | \$46,000 | \$56,000 |
| Total Budget | | | |
| Planning & Design | \$19,000 | \$0 | \$0 |
| Administration | \$5,000 | \$6,000 | \$5,000 |
| Advertising & Promotion | \$1,000 | \$1,000 | \$1,000 |
| Customer Incentives | \$28,000 | \$61,000 | \$78,000 |
| Monitoring & Evaluation | \$1,000 | \$2,000 | \$1,000 |
| Equipment | \$0 | \$0 | \$0 |
| Installation | \$0 | \$0 | \$0 |
| Total | \$54,000 | \$70,000 | \$85,000 |

13. Cost-Effectiveness Results

Table 7 provides program cost-effectiveness results.

Table 7
Cost-Effectiveness Results

| Test | B/C Ratio |
|--------------------------|------------------|
| Participant | 1.76 |
| Utility | 8.80 |
| Ratepayer Impact Measure | 1.44 |
| Total Resource | 2.25 |
| Societal | 3.09 |