

# Small Commercial Energy Audit

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## 1. Program Description

This 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. For certain measures, financial incentives offered under this program are more generous than those available under other MidAmerican programs. The program is supported by a program contractor and marketed under the registered trademark name of BusinessCheck®.

## 2. Operations

MidAmerican uses a program contractor to administer the overall program, including program enrollment, data tracking and rebate processing. The on-site energy audit component is delivered through two program contractors: one more experienced with energy systems installed in large buildings and more complex business operations and another more experienced with smaller buildings.

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.

Key steps in program participation include:

- Scheduling and completing an on-site audit, during which the auditor directly installs simple energy efficiency measures, 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 building energy systems more efficiently and disseminates information on other MidAmerican program offerings,

- Providing the business owner with an audit report which includes recommendations for energy efficiency projects appropriate for small businesses, focusing particularly on insulation and lighting projects,
- Processing rebate payments to customers and
- Verifying 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<sup>®</sup>).

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.

### **3. Value Proposition**

Customers participating in the program receive the following main benefits:

- *A whole-building assessment and trustworthy energy-savings recommendations* from trained auditors,

- *Immediate savings* through the direct installation of low-cost lighting, water heating and other energy-saving measures,
- *Significant savings*, increased comfort and increased property values with a low capital investment through rebates on insulation, lighting and other efficiency projects and
- *Lower hassle* by relying on the program contractor to schedule audits fitting their schedule and provide reminders to follow-through on recommendations.

#### **4. Customer Targets**

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

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. The online audit is available to all customers.

Table 1 outlines customer eligibility requirements.

**Table 1  
Customer Eligibility Parameters**

	<b>Electric Measures</b>	<b>Natural Gas Measures</b>
<b>Customer Class</b>	Nonresidential electric rates	Nonresidential natural gas rates; Gas transportation customers with daily metering are ineligible
<b>Customer Status</b>	Customer building or business owners; Landlords of customers	Customer building or business owners; Landlords of customers
<b>Business Type</b>	All	All
<b>Building Type</b>	All	All
<b>Building Vintage</b>	Existing buildings	Existing buildings
<b>Geography</b>	Installed in MidAmerican South Dakota electric territory	Installed in MidAmerican South Dakota natural gas territory
<b>Size</b>	Less than 25,000 square feet	Less than 25,000 square feet

**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:

- Lighting dealers and installers
- Electrical dealers
- Insulation dealers
- HVAC dealers

In addition to assisting customers with the rebate process, trade allies will play a key role in implementing the program. MidAmerican plans to operate a dealer referral program where dealers – in the course of sales calls – take notice of overall conditions of the customers’ business premise. Where conditions indicate the potential for additional

energy improvements, they will explain the Small Commercial Energy Audit program to their customers and refer them to 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

The program includes a wide range of measures.

- ***Direct installation measures:*** Measures available for installation during on-site audits include:
  - Water pipe insulation
  - Low-flow aerators
  - LED exit signs
  - Occupancy sensors
  - Vending machine controls
  - Hot water heater blankets
  - High-pressure rinse sprayers
  
- ***Comprehensive measures:*** The program provides financial incentives for customers pre-qualified through the audit. Typical projects include:
  - Ceiling and sidewall insulation
  - T-5 and T-8 fluorescent lighting systems
  - Lighting controls
  - Efficient air conditioners
  - Efficient furnaces
  - Programmable thermostats
  - Efficient water heaters
  - Efficient motors
  - Refrigerated vending machine controllers

- Variable-speed drives
- Efficient kitchen equipment

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.

## **7. Market Barriers**

Table 2 presents the key market barriers to an effective small commercial audit program, as well as the strategies the program uses to address each barrier. Note these program strategies can only partially offset these barriers.

**Table 2  
Market Barriers and Strategies**

<b>Market Barriers</b>	<b>Program Strategies</b>
High cost of efficient equipment	Free on-site energy audits and direct installation measures for immediate savings; Provide rebates to help offset the cost of efficient equipment
Lack of customer awareness	Free, third-party expert analysis and recommendations; General education and information about simple operational changes and initiatives that provide on-going savings
Limited time, resources and awareness on how to act on recommendations	Free independent assessment and recommendations; Robust trade ally network and referral program to help identify appropriate dealers; Follow-up calls and letters to help customers move through installation steps; Provide simple maintenance tips for ongoing savings; Management focus on communications
Low dealer awareness	Ongoing dealer communications and outreach
Customers don't trust energy-savings calculations	Free independent assessment and recommendations; Case studies of actual projects with energy savings where appropriate
Energy small part of overall operating costs	Targeted marketing materials and education efforts
Landlord-tenant problem resulting from split-incentives	Offer higher rebates for tenant-occupied space

## **8. Financial Incentives**

To encourage customers to participate in the program and invest in the comprehensive solutions recommended by the auditors in this difficult-to-reach segment, the program provides financial incentives that are larger than those available for the less comprehensive Nonresidential Equipment and Nonresidential Custom programs.

Three types of incentives are offered through this program.

- **Full subsidies** are offered for the audit itself as well as the low-cost measures directly installed during the audit. The strategy is to overcome market barriers concerning split incentives (i.e., landlords own the buildings but tenants pay utility bills), cost and perceived quality.
- **Rebates** are offered to offset the installation costs of projects recommended during the audit. Rebates are structured in one of the following ways, depending on the type of project.
  - Insulation projects receive rebates set at twice the applicable rebates detailed in the Nonresidential Equipment program, subject to caps defined per square foot of insulated area.
  - Projects converting existing inefficient lighting to qualifying high-efficiency lighting receive rebates set at three times applicable rebates defined in the Nonresidential Equipment program.
  - Projects involving other measures defined in the Nonresidential Equipment program receive rebates equivalent to those offered by that program.
  - Special or custom projects receive rebates that buy down the customer payback to a period of one year for owner-occupied buildings and one-half year for tenant-occupied space, with total rebates capped at four years of energy savings for owner-occupied space and four and one-half years of energy savings for tenant-occupied space.



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

## 9. Promotion

The promotional strategy for this program will include brochures, direct mail, a dedicated Web page and utility bill inserts. Additional promotional efforts will include direct referrals from trade allies.

Additionally, each year MidAmerican will target a specific business segment with industry-specific marketing and targeted mailings, with segments rotated each year.

## 10. Participation

Table 3 provides program participation assumptions.

**Table 3  
Participation**

	2009	2010	2011
<b>Electric Measures</b>			
Audits (Electric Customers)	1	3	4
Direct-Install Measures (Electric)	-	1	2
Follow-Up Measures (Electric)	2	12	23
<b>Natural Gas Measures</b>			
Audits (Gas Customers)	19	69	109
Direct-Install Measures (Gas)	28	107	172
Follow-Up Measures (Gas)	1	6	9

\*Some electric measures come from audits of gas-heat customers.

## 11. Energy and Demand Savings

Table 4 provides energy and demand savings goals.

**Table 4**  
**Cumulative Energy and Demand Savings**

	2009	2010	2011
<b>Electric Impacts</b>			
Annual Energy (kWh)	169	3,978	10,349
Peak Demand (kW)	0	1	3
<b>Natural Gas Impacts</b>			
Annual Energy (therms)	1,603	9,018	22,120
Peak-Day Demand (therms)	20	112	274

## 12. Budget

Table 5 provides program budget assumptions.

**Table 5**  
**Budget (\$000)**

	2009	2010	2011
<b>Electric Budget</b>			
Planning & Design	\$0	\$0	\$0
Administration	\$2,000	\$2,000	\$2,000
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$0	\$2,000	\$3,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
<b>Electric Total</b>	<b>\$2,000</b>	<b>\$4,000</b>	<b>\$5,000</b>
<b>Natural Gas Budget</b>			
Planning & Design	\$11,000	\$1,000	\$1,000
Administration	\$29,000	\$30,000	\$30,000
Advertising & Promotion	\$1,000	\$1,000	\$1,000
Customer Incentives	\$15,000	\$64,000	\$117,000
Monitoring	\$3,000	\$8,000	\$2,000
Equipment	\$1,000	\$0	\$0
Installation	\$0	\$0	\$0
<b>Natural Gas Total</b>	<b>\$60,000</b>	<b>\$104,000</b>	<b>\$151,000</b>
<b>Total Budget</b>			
Planning & Design	\$11,000	\$1,000	\$1,000
Administration	\$31,000	\$32,000	\$32,000
Advertising & Promotion	\$1,000	\$1,000	\$1,000
Customer Incentives	\$15,000	\$66,000	\$120,000
Monitoring	\$3,000	\$8,000	\$2,000
Equipment	\$1,000	\$0	\$0
Installation	\$0	\$0	\$0
<b>Total</b>	<b>\$62,000</b>	<b>\$108,000</b>	<b>\$156,000</b>

### 13. Cost-Effectiveness Results

Table 6 provides program cost-effectiveness results.

**Table 6**  
**Cost-Effectiveness Results**

<b>Test</b>	<b>B/C Ratio</b>
Participant	76.29
Utility	0.74
Ratepayer Impact Measure	0.45
Total Resource	0.79
Societal	1.11