

# *Interim Legislative Committee on Energy Efficiency*

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*October 18, 2007*



## Overview

- Energy efficiency education
- Review MEC's energy efficiency activities
- Case studies: helping customers
- MEC's objectives for 2009-2013 EE plan



## Mission

- Assist customers in managing energy use
- Provide programs, services and other tools to assist customers in making decisions about EE improvements
- Help stabilize wholesale energy prices
- Help protect the environment
- Contribute to economic growth



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## Energy Efficiency Education



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## Energy Efficiency Education

- Increase awareness of the benefits of conserving energy and protecting environment
- Increase awareness about EE programs, services and tools available to assist customers in making energy efficiency improvements
- Educating youth about conserving resources and protecting the environment
- Continuing EE education for contractors and customers



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## Energy Efficiency Education

- **Strategy:** increase emphasis on market transformation – focus on education activities that promote high-efficiency equipment, structural improvements and transform customer behaviors
- **General energy efficiency education activities**
  - **Save some green**<sup>®</sup>. advertising campaign
  - Energy efficiency expos: home and business shows, parade of homes, state and county fairs, lunch 'n learn, speakers bureau
  - Continuing education classes and seminars for contractors, A/E firms, building managers and other customers; EE information provided to public libraries
  - ENERGYsmart University
- **Residential customers**
  - Online and on-site energy audits
  - **Energy Efficiency World** Web site - primary school curriculum
  - **Energy Wise Home Savings Kits and classes** – low-income education training
- **Commercial, government and industrial customers**
  - Online and on-site energy audits, energy analyses
  - EnVinta One-2-Five energy management diagnostic sessions
  - **Energy Efficiency Awareness Campaign**<sup>®</sup>
  - Key account manager relationships



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# EE Programs and Services



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## MidAmerican Energy Efficiency Programs

### Residential

- HomeCheck®
- HomeCheck® Online
- Residential Equipment
- Low-Income Weatherization
- EnergyAdvantage® Financing
- EnergyAdvantage® New Homes
- SummerSaver<sup>SM</sup>
- *Trees Please!*
- Plant some shade®.

### Nonresidential

- BusinessCheck®
- BusinessCheck® Online
- Nonresidential Equipment
- Nonresidential Custom
- *EfficiencyPartners®*
- Efficiency Bid®
- Commercial New Construction
- Curtailment



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## MEC Special Initiatives

- Change a Light, Change the World Campaign
  - Retail sales promotion of CFLs
  - Implemented jointly with IPL
- Iowa Weatherization Challenge
  - MEC provides support to IUB program
  - Community-based weatherization projects
- Multifamily Low-Income Weatherization
  - IOUs coordinating implementation with Iowa Finance Authority



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## MidAmerican's Energy Efficiency Investment

### Since 1990, MidAmerican:

- Invested \$429 million in Iowa homes and businesses.
- Saved about 800 million kilowatt-hours, enough to power about 80,000 homes.
- Reduced electric peak demand by over 450 MW.
- Saved about 40 million therms, enough to heat about 50,000 homes.
- Eliminated 717,000 tons of greenhouse gas emissions, equivalent to removing an average of 10,000 cars from the road each year.
- Served about 325,000 electric customers and 250,000 gas customers.
- Installed or rebated about 700,000 CFLs.
- Audited over 100,000 existing homes.
- Certified over 20,000 new homes, and 19.5 million square feet of new commercial buildings as energy efficient.
- Completed 153 commercial new construction projects with 116 pre-approved projects in process.

### In 2006, MidAmerican:

- Invested \$48 million in Iowa homes and businesses.
- Spent 2.8 percent of electric retail revenue and 2.8 percent of natural gas retail revenue on energy efficiency programs.
- Offset about 40 percent of MidAmerican's load growth with energy efficiency and load management programs.
- Completed about 9,000 HomeCheck audits.
- Certified about 4,200 new ENERGY STAR® homes.
- Rebated or financed over 9,000 high-efficiency furnaces.
- Rebated or financed over 4,300 high-efficiency central air conditioners.
- Added about 3.7 million square feet of insulation. Fifty percent of HomeCheck participants installed insulation.
- Supported Iowa Weatherization Challenge project that weatherized 64 homes in the Iowa Quad-Cities.



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# Case Studies



## Whole-Household Energy Efficiency Improvements for Home and Family

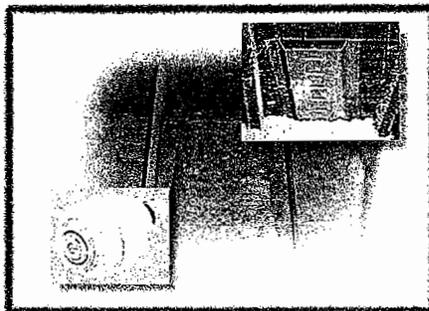
### HomeCheck/Residential Equipment

#### Features

- Free energy audit
- Recommendations for behavior, building shell and equipment changes
- Free installation of CFLs, low-flow showerhead and faucet aerators
- Cash rebates for attic insulation, new high-efficiency furnace and new high-efficiency air conditioner
- Instant referral/scheduling for insulation upgrade with MidAmerican network contractor, including guaranteed price

#### Benefits

- About \$1,000 in free services, installed measures and rebates
- \$400-\$500 annual bill reductions
- A home now warmer in winter and cooler in summer



## Integrating Energy-Efficient Technologies with Proven Energy-Efficient Construction Practices

### Commercial New Construction

#### Features

- Free consulting assistance
  - Managing energy design process
  - Modeling efficient design scenarios
  - Tracking design changes through final construction documents and construction
  - Verifying built savings
- Rebates
  - Additional design team costs
  - Incremental capital costs

#### Benefits

- Annual savings of 600,000 kWh and \$48,000
- Payback on developer's investment below two years

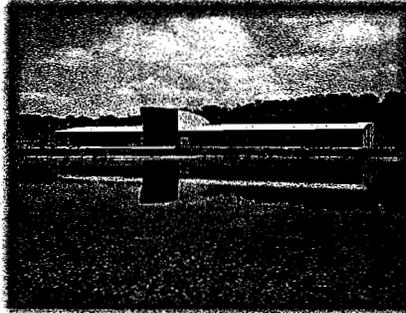


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## Comprehensive Energy Efficiency Retrofits Manufacturing Facility

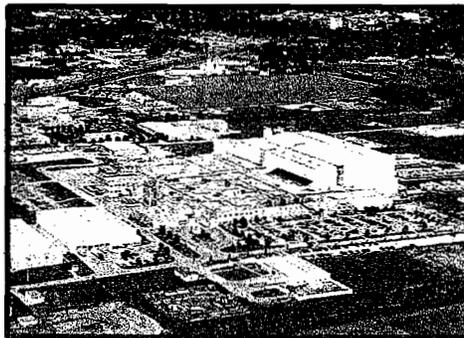
### **EfficiencyPartners®**

#### Features

- Free engineering assessment
- Free management systems audit
- Signed Energy Efficiency Action Plan
- Implementation assistance
  - Referrals to qualified contractors
  - Savings verification
  - Energy awareness program
  - Management systems assistance
- Rebates to lower capital investment

#### Benefits (so far)

- 18 projects identified
- Potential investment of over \$1 million
- Potential MidAmerican investment of over \$800,000
- Potential savings of over \$600,000 per year
- Management systems in place to identify additional projects over lifetime of facility



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# MEC's EE Plan for 2009-2013



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## Collaboration

- May 16 - joint stakeholder meeting, started assessment of capacity and energy-savings potential
- August 2 - joint stakeholder meeting, presented preliminary assessment results
- October 3 - final joint stakeholder meeting, updated assessment results
- October 24 – MidAmerican's first collaborative meeting
- Meetings with stakeholder groups and customers
- February 2008 – MidAmerican's second collaborative meeting
- Meetings with stakeholder groups and customers
- Other?



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## Objectives for MEC Plan for 2009-2013

- **Expand infrastructure supporting energy efficiency efforts**
  - Aggressive energy efficiency education program
  - Expand coordination with trade allies
  - Enhance information management systems
- **Emphasis on integrated solutions (market transformation)**
  - Comprehensive solutions for existing homes and businesses
  - More aggressive lighting programs
  - Expand efforts to promote EE new construction practices
  - Provide incentives for renewable energy measures, when appropriate
- **Expand scope of existing programs**
  - Add new energy efficiency measures
  - Identify unserved and underserved market segments
  - Align resource allocation with opportunities identified in assessment
- **Increase emphasis on peak electric demand savings**



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## Summary

- MEC committed to conserving energy and protecting the environment
- Proud to be a part of State of Iowa's long-standing tradition of energy efficiency and environmental stewardship
- Look forward to continued cooperation and coordination of energy efficiency efforts



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# Questions?



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## Energy Efficiency Education

- Award winning Save some green® advertising teaches customers about low-cost and no-cost energy efficiency improvements.
- Energy Wise Home Savings Kits are distributed to community action agencies.
  - Provide energy-saving measures and education to LIHEAP-eligible customers through kit measures and educational classes conducted by agencies
- Energy Efficiency World Web site and curriculum teaches children grades 3-6 about energy efficiency in schools throughout Iowa.



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## Energy Efficiency Education

- Energy Efficiency Awareness Campaign® provides nonresidential customers tools to teach employees and students about energy efficiency at home and work. Some participants include the following.
  - Colleges and Universities
    - Des Moines Area Community College, Iowa School for the Deaf, St. Ambrose University, University of Iowa and William Penn University
  - Community Schools
    - Ankeny, Council Bluffs, Bettendorf, Davenport, Des Moines, Lewis Central, Norwalk, Sioux City, Storm Lake and Waterloo
  - Government Entities
    - City of Bettendorf, City of Davenport, GSA Public Buildings, Iowa Army National Guard and the State of Iowa
  - Corporations
    - Allen Memorial Hospital, Argosy, Gelita North America, Gerdau Ameristeel, Lear Corporation, Nestle Purina, Pioneer Hi-Bred, Procter & Gamble and Quad City Times
- Provide classes and training seminars for contractors, equipment vendors, facility managers and other customers



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## Awards and Recognition

- **State of Iowa Awards**
  - Governor's Iowa Environmental Excellence Award - Special Recognition in Energy Efficiency/Renewable Energy (2004)
  - Governor Vilsack's Above and Beyond award for Trees for Kids and Trees for Teens programs
- **U.S. EPA/ENERGY STAR® Awards**
  - ENERGY STAR-Labeled Homes Outstanding Achievement Award for New Homes Program (2006, 2005, 2004, 2003, 2002, 2001)
  - Excellence in ENERGY STAR Outreach for Change a Light, Change the World Campaign (2006, 2005)
  - Excellence in Energy Efficiency and Environmental Education for New Homes Program (2006, 2005)
  - ENERGY STAR 2004 Partner of the Year
- **Other Regional and National Awards**
  - Midwest Energy Efficiency Alliance Inspiring Efficiency Impact Award for Commercial New Construction Program (2005)
  - Midwest Energy Efficiency Alliance Inspiring Efficiency Marketing Award for Mr. Green/Save some green Advertising Campaign (2006)
  - Peak Load Management Alliance Demand Response Award for Outstanding Achievement by an Electricity Supplier (2003)
  - National Arbor Day Foundation: Tree Line USA Award (2006, 2005 and earlier)
  - Utility Communicators International Better Communications Competition Complete Campaign Marketing Award for Mr. Green/Save some green Advertising Campaign (2007)
  - American Council for an Energy-Efficient Economy (ACEEE) Certificate of Recognition for Exemplary Programs, Honorable Mention for the Residential New Construction Program (2007)



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