



Energy Efficiency Improvements in New & Existing Homes

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Power Saver™ Program

Saving Energy Together





Residential Program

Austin Energy awarded:



&

Sustained Excellence Award
2007-2009

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Overview

- **Austin Energy – Austin, Texas**
- Municipal-Owned Electric Utility
 - *10th Largest Municipal Utility*
- Serves > 888,000 Population
 - *320,000 Residential*
 - *40,000 Commercial*
- Generation – 3,170 MW
 - *Coal 35%, Nuclear 28%, Gas 28%, Purchase Power 5%, Renewable 4%*

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Energy Efficiency

- **AE Energy Efficiency**
- Since 1982, conservation programs in Austin have reduced peak demand by 837 MW with more than 1 million Austinites and businesses participating.
- **Average annual results** over the past four years (2005-2008) :
 - 59 MW reduced peak demand
 - 103 million kWh saved
 - 45,700 customer participants
 - \$9.8 million savings on electric bills

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City Council

- Resolution September 14, 1999
“Cost-effective conservation programs shall be the first priority in meeting new load growth requirements of Austin Energy.”
- Clean Energy Resolution August 28, 2003
... Austin Energy Strategic Plan to ensure Austin remains a national and international leader in the development and use of clean energy

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Promoting Energy Efficiency

- 1.) Aggressive incentives
- 2.) Cash rebates that pay 20-30% of cost
- 4.) Free Installations
 - Direct installs
 - Low-income weatherization
 - Free home & business energy audits
 - Partnership with local vendors, contractors
 - Grass root outreach (newsletters, direct mail)
 - Key account representatives

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Why Promote Energy Efficiency?

<u>Power Plant – Fuel Type</u>	<u>Cost/kW</u>
Natural Gas – Combined Cycle	\$750
Pulverized Coal	\$1,549
Nuclear	\$2,800
Source – National Energy Technology Lab (NETL)	
Energy Efficiency	\$450
Austin Energy's Residential Program	
MW Saved 2007-2008	9.27

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Residential Program

Home Performance with ENERGY STAR®

October 2003:

Austin City Council approved the acceptance of the grant awarded from the U.S. Dept. of Energy

1st Quarter of 2004:

Austin Energy transitions the “Total Home Efficiency Program” to “Home Performance with Energy Star® Program”

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27 Years Promoting Energy Efficiency!

Original Program Developed in 1982

- Low Interest Loan Offered

Core Group of Contractors

- 4 to 5 Local Contractors

Home Improvement Offered

- High Efficiency AC- 10.0 SEER

- Home Sealing-Less than 0.7 ACH, Attic Insulation R-26

Energy Savings-Since Inception

- Energy Savings

- Demand Savings

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Today's Program

- **EPA Partnership in 2004**
- **2007-08 Results**
 - *Current budget \$1.65 Million*
 - *Estimated 1,700 jobs*
 - *Average 2549 KWh per customer*
- **Recognition & Credibility**
 - *Customers recognize ENERGY STAR*
- **Increased Contractor Participation**
 - *Over 90 participating contractors*
 - *AE Inspection group (6) conducts verifications and final inspections*

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Residential Program

Program Offerings

- ***Home Performance with ENERGY STAR®***
 - ***Rebates***
 - ***Loans***
- ***Appliance Efficiency Program***
- ***Solar Shading***
- ***Attic Insulation***
- ***Radiant Barrier***

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Program Offerings (Continued)

- *Air Infiltration*
- *HVAC Replacement*
 - *Package Units*
 - *Central Split Systems*

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Home Performance with ENERGY STAR®

System Replacement

- 14.0 SEER/11.5 EER or greater
- Air Conditioning/Heat Pumps

Attic Insulation

- R Value of 38

Solar Screens, Film, Low-E glass (\$1.00 sq. ft.)

- South, East & West 1 Hour or more – 40% of Window

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Home Performance with ENERGY STAR®

Duct Sealing & Replacement

- System integrity
- Proper air distribution
- Energy usage

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Residential Program

Comprehensive

- Duct Replacement 50% or less of duct work
 - \$1.75 per linear ft.
- Duct Insulation
 - \$1.25 per linear ft.

Test out: Blower door, back draft and duct blaster is required

\$0.12 per sq. ft.

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Residential Program

System Performance

- Duct Replacement 50% or more of duct work & Window A/C units are converted to a central A/C system
 - \$1.75 per linear ft.
- Duct Insulation:
 - \$1.25 per linear ft. (wrap)
 - \$0.30 per linear ft (drape or bury)
 - \$200 Each System
 - \$50 per New Return Air Improvement

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Home Performance with ENERGY STAR® Rebate Option

Weatherization Rebates

- Solar Shading
 - \$ 1.00 Sq ft.
- Attic Insulation
 - $\text{Add R value} \times \text{attic sq. ft} \times \$ 0.0035 + \$45 = \text{Rebate}$
- Radiant Barrier
 - \$0.10 per sq. ft.
- Duct Sealing
 - \$ 0.12 per linear ft. condition space

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Home Performance with ENERGY STAR® Weatherization Bonus Rebate

All recommended measures must be completed and
Air Conditioning System installed (size 600 sq.ft. per ton)
14.0 SEER/11.5 EER or greater.

Bonus Rebate is based on actual weatherization cost
Bonus ranges from \$200 to \$650 may cover up to
20% of the Total Cost of the Job.

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Home Performance with ENERGY STAR®

Texas Gas Service Rebate

Rate Code: AUST I/S RES or SUNV I/S RES

Match Austin Energy's rebates on:

Attic Insulation (\$0.0035 per sq. ft. per "R" + \$45 Setup fee)

In addition to Austin Energy's rebates:

Duct Sealing = \$.08 Linear ft. conditioned space

Furnace = \$75.00

Duct Replacement = \$1.75 Linear ft.

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Home Performance with ENERGY STAR®

Loan Option

- *Velocity Credit Union*
- *0%-6.5% APR Unsecured Loans*
- *Single Family – Duplex Properties Eligible*

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Home Performance with Energy Star® Loan

- Loan Option 1:
- **HOME PERFORMANCE WITH ENERGY STAR® Package**
- All Recommended Energy Improvements
- Duct System Performance Improvements
- Up to 2 HVAC System Replacement

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Option 1 (Continued)

- 0% – 3.5% APR Home Improvement Loan
- 3 – 10 Year Term Options
- Up to \$8,500 -Single Family; Up to \$11,000 -2 HVAC System/Duplexes

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Loan Option 2: RESIDENTIAL OPTIONAL MEASURES

- HVAC System Replacement and Duct System Performance Improvements
- - *Duct System Performance Testing Required*
- Duct System Performance Improvements
- - *Duct System Performance Testing Required*
- Radiant Barrier - *Qualified products only*
- Attic Insulation - *Up to R-38*

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Option 2- Residential Option Measures (Continued)

- Low-E Windows – *Energy Star® labeled with .40 Shading Coefficient or better*
- 1.9% – 5.0% APR Home Improvement Loan
- 3 – 10 Year Term Options
- Up to \$11,000 – Single Family or Duplexes

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Home Performance with Energy Star® Contractor Equipment & Training Rebate

- Assist local Home Performance contractors with -
 - Specialized testing equipment;
 - Development of personnel for the home performance field
- Rebates are available for the purchased of specialized testing equipment
- Rebates are available for HVAC Industry and Home Performance Training Seminars
- Must be currently registered as a Home Performance with Energy Star® Participating Company with Austin Energy's Power Saver Program™.
- Must be currently registered as a vendor with the City of Austin's Purchasing Dept.
- Must have completed a minimum of (5) Home Performance with Energy Star® Program jobs in FY 2007-2008.

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Appliance Efficiency Program

Existing Homes

- 14.0 SEER – 11.5 or greater
 - Air Conditioning/Heat Pumps
- ENERGY STAR - Room Air Conditioners (window units)
- Solar, Heat Recovery & Heat Pump Water Heaters

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Free Weatherization Program

Eligible Improvements

- Attic Insulation
- Caulking and Weather-stripping
- Duct Sealing/Repair
- Solar Screens

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Free Weatherization Program

Eligibility Requirements

Austin Energy Customer

- Value of the house cannot exceed \$150,000
- Elderly (60 yrs +) & Disabled
 - 80% of medium income
- Regular weatherization
 - 50% of medium income
- 2007 HUD Income Guidelines

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Free Weatherization Program

Window Unit Vouchers

- Must meet free weatherization income guidelines, participate in program.
- For customers with no A/C or old inefficient units-owners only.
- Provide \$500 window unit voucher.
- Customers redeems voucher at participating retailer.

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Refrigerator Recycling Program

Receive \$50 when you recycle your old Refrigerator

- Turn Key Services Offered by Appliance Recycling Centers of America (ARCA)
 - Contact Customer Service
 - Pick Up/Recycle
 - Service of Single Family & Multi-Family Customers
- Must be in Working Condition

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Refrigerator Recycling Program

Benefit to Austin Energy

Process/Recycling of:

Polyurethane Foam, Refrigerant,

Metals, Glass, Plastics, and Compressor Oil

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Lighting Program

- **ENERGY STAR Lighting Coupon**
 - \$2.00 & \$4.00 off, Instant Coupon for Energy Star CFL's
 - \$10.00 off, Instant Coupon for Energy Star Light Fixtures
 - Local Retailers Redeeming Coupons

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Accomplishments



Past 27 Years!

- Demand Peak Savings 433 MW
- Energy Savings 414,000 MWH
- Number of Participants 555,000

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Strengths & Lessons Learned

Strengths:

- Marketing and educating to our customer base
- Remaining open to new energy efficient technologies
- One-on-one communication with contractors
- Solicitation of contractors' inputs on program
- HPwES Participating Contractor Web site- "free advertising"
- Program focused and contractor driven

Lessons Learned & Challenges:

- Contractors must be treated equally
- Miscommunication concerning technologies

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Recommendations

Develop strategies to increase supply (contractors) and demand (consumer awareness) at the same time (*Olson*)

Ensure that good quality control checks are in place

Provide assistance to program sponsors

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Questions?



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