



*Austin's  
Early Experiences with  
Conservation Code's  
Disclosure Laws*

Market Transformation Program  
April 11, 2011



# Presentation

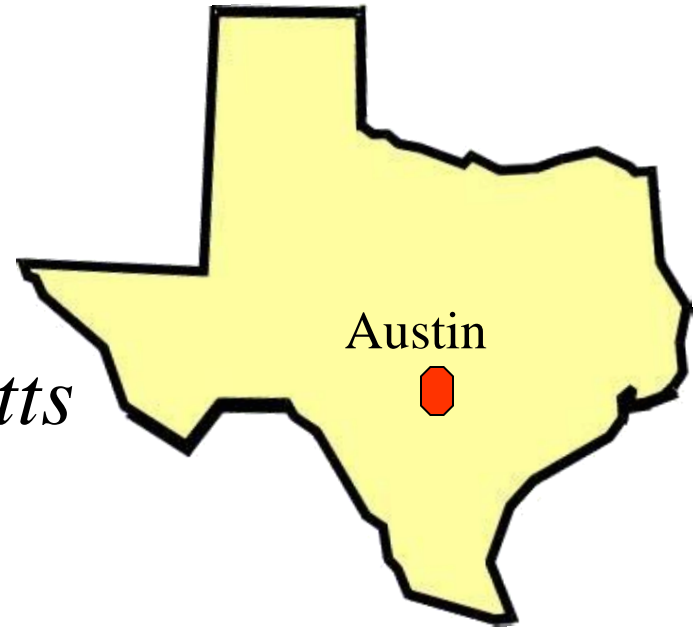


- *Austin Energy Profile*
- *Austin Climate Protection Plan*
- *Energy Conservation Audit & Disclosure Ordinance Including Proposed Code Amendments*
- *Lessons Learned*
- *Next Steps*
- *Question & Answers*

# Utility Profile



- *Municipally-owned*
- *900,000 population*
- *Area > 400 square miles*
- *Generation 3,000 megawatts of energy*
- *370,000 electric customers*



# Climate Protection Plan



Resolution on February 15, 2007

*“Make Austin the leading city in the nation in the effort to reduce and reverse the negative impacts of global warming.”*

*Includes 5 components to reduce GHG emissions*

# Climate Protection Plan



- *Municipal Plan* – make all COA facilities, fleets, and operations carbon-neutral by 2020
- *Utility Plan* – 800 MW of energy savings, 30% renewable energy, carbon neutrality on new generation, and set CO<sub>2</sub> cap and reduction plan for utility emissions
- *Homes and Buildings Plan* – Later
- *Community Plan* – reduce green house gas emissions community wide in transportation, land use etc.
- *Go Neutral Plan* – provide mechanisms for businesses and individuals to reduce green house gas emissions

# Homes and Buildings



- *All new homes zero net energy capable by 2015*
- *All new non-residential construction 75% more efficient by 2015*
- *Disclosure of historic energy use and facilitate energy improvements in existing homes and buildings*
- *Enhanced incentives for Green Building and Carbon Neutral rating systems*

# Timeline



- *February 15, 2007*      *Austin Climate Protection Plan approved by Austin City Council*
- *December 13, 2007*      *Austin City Council appointed City Manager to form a Task Force*
- *November 6, 2008*      *Ordinance No.20081106-047 approved by Austin City Council*
- *June 1, 2009*      *City Code takes effect for single family homes, multifamily & commercial*
- *April 21, 2011*      *Proposed Code Amendments*
- *Summer 2011*      *Update to Austin City Council*

# Stakeholders



- *City Resource Management Commission*
- *City Electric Utility Commission*
- *Original Energy Efficiency Task Force Members*
- *Austin Board of REALTORS®*
- *Austin Apartment Association*
- *BOMA and affiliate members*
- *Residential and Commercial Building Inspectors*
- *Home Performance Contractors*
- *HERS Companies*
- *Title Companies*
- *Lending Companies*
- *Real Estate Company Groups*
- *Property Management Groups*
- *NEW-ECAD Auditors*



# Building Segments



## Effective June 1, 2009

- Residential Facilities (*4 or fewer*)
  - *Energy audit performed before the time of sale (the date of the recording of the deed).*
- Multi-Family Facilities (*5 or more*)
  - *Energy audit performed before June 1<sup>st</sup>, 2011*
- Within the Austin City Limits, **and** Receiving Electric Service from Austin Electric Utility

# Code Amendment



## Residential Homes Segment

- Proposed *New* “Time of Sale”
  - Problem: *Currently is the date the recording of a deed transferring legal title.*
  - Solution: *Mirrors the sellers disclosure required by Texas real estate law that come before the end of option period.*

Stakeholder Agreement! Encourage energy efficiency conversations between home seller & buyer earlier in the home sales transaction.

# Code Amendment



## Multifamily Property Segment

- Proposed Energy Utilization Index (EUI)
  - *Problem: Mandatory requirement from 150% to 110% may not be achievable under cost-effective energy efficiency upgrades.*  
*(Duct sealing, attic insulation/roof coating, solar screens & CFLs)*
  - *Staff Recommendation: Implement specific plan for 20% reduction along with resident educational campaign.*

# Code Amendment



## Condominiums

- Proposed Building Type *vs.* Type of Ownership
  - Problem: *Condominium building types and disclosure language not a good match for residential or multifamily.*
  - Solution: *Implement new Article with both.*
    - *Owners with 5 or more units at the same property location will follow multifamily model.*
    - *Individual Owners to follow residential model.*

# Improvements Created



- Auditors certification and training
  - RESNET & BPI Affiliates:
    - *Private Training Centers*
    - *Community College*
    - *Grant Funded Programs*
- ECAD database
- Educational Campaigns
  - *Website, marketing collateral, advertising, press briefings, real estate group presentations, and 311/AE call center*

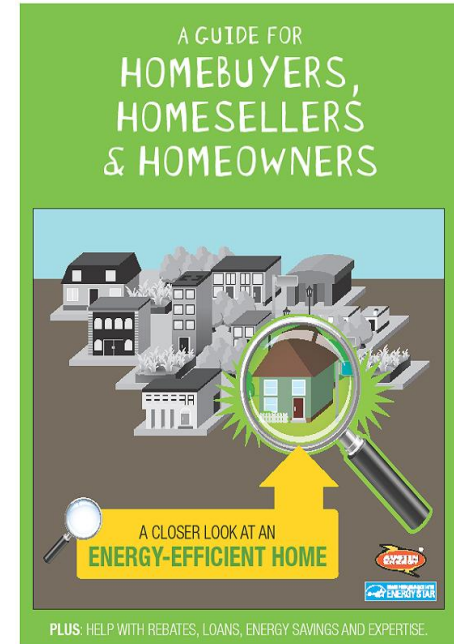


# Residential Homes



## 1<sup>st</sup> Year Statistics

- *Austin home sales: 9,549*
- *4,862 ECAD audits received*
  - *Energy audit:*
    - *Weatherization*
    - *Duct Leakage*
    - *Attic Insulation*
    - *Window Shading*
    - *Identifying opportunities for upgrading HVAC systems, home appliance, Austin Water qualified conservation measures*



# Expected Savings



- *4,862 Audited Homes*
- *Potential annual savings:*
  - *7,788,000 kWh/yr*
  - *\$723,650 per year*
  - *3.9 MW saved*
  - *Equivalent to powering 650 homes*
  - *Emissions:*
    - 4,897 Tons of CO<sub>2</sub>/yr*



# Residential Audit Results



- *Ducts Leak almost twice the code standard 10% or less*
- *Older homes need 10 inches of insulation*
- *98% of audited homes received at least one energy efficiency recommendation:*
  - *Over 60% need in-home weatherization*
  - *Over 50% need solar shading*
  - *Over 60% need HVAC air duct system renovation and sealing*
  - *Over 70% need additional attic insulation*



# Resolution Goals



- *City Council Resolution Goal for First Year:*
  - *25% of Homes Sold to Receive Retrofits*
  - *Currently tracking 10% participation*
- *Overall increase in Rebate Program*



# Multifamily Properties



- *Requires energy audit performed no later than June 1, 2011*
- *Multifamily property profile*
  - *Number of properties: 1,411*
  - *Number of properties needing audit: 1,196*



# Multifamily Properties



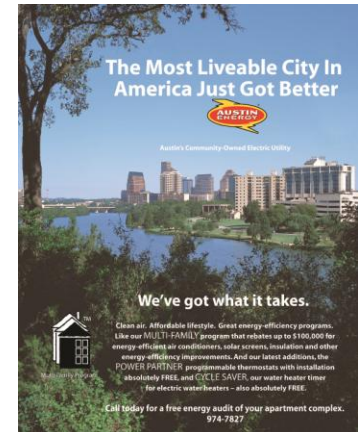
- *City Land Development Code:*
  - *Residential Zoning Districts (SF 1-6 & MF 1-6)*
- *Building Codes By Building Types:*
  - *One and Two Family, Buildings 3 or less and Buildings 4 or more*
  - *Impact of other Building Codes*
- *Utility Rate Structures*
  - *Demand, Non-Demand or Residential Rates*

# Multifamily Properties



## Audit Approach

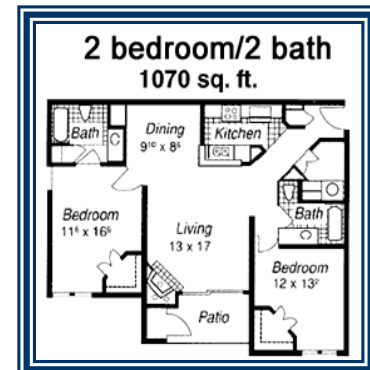
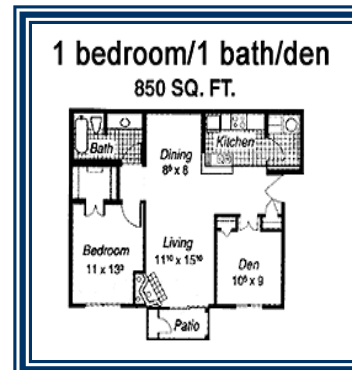
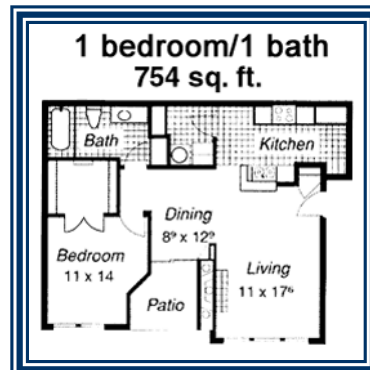
- *ECAD enhanced rebates to encourage participation*
  - *Audit data points similar to rebate data collection*
- *ECAD auditors training*
  - *Duct remediation/sealing*
  - *Attic insulation / Roof Coating*
  - *Window shading*
  - *Lighting*
  - *HVAC*
  - *Demand response: water heater timers, energymiser or thermostats*



# Multifamily Properties



- *High usage properties must implement energy efficiency improvements*
- *Energy utilization index (EUI) benchmark*
  - *Six categories were created:*
    - *All Electric or Gas and Electric built prior to 1985*
    - *All Electric or Gas and Electric built between 1985 and 2001*
    - *All Electric or Gas and Electric built between 2001 and present*



# Lessons Learned



- *ECAD energy audit not onerous*
- *Outreach and awareness campaign*
- *Audit form technical and difficult to interpret*
- *Point of violation difficult to enforcement residential*
- *Not all properties are clearly addressed*
- *Need more comprehensive database*

# Next Steps



- *Proposed Code Amendments:*
  - *Council Action*
  - *Promulgate NEW Administrative Rules May*
- *ECAD Market Transformation:*
  - *Implement new web-based tool*
    - *Exact implementation dependent on CC&B “go-live”*
  - *Continue to engage stakeholders*
  - *Marketing campaign for Q2 of 2011*



*Thank You!*

## Contact Information:

**Tim Kisner**

Energy Efficiency Services

(512) 482-5329

[tim.kisner@austinenergy.com](mailto:tim.kisner@austinenergy.com)