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$_2$ 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 1st, 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 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.
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.
Improvemnts 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

1st 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 CO2/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!

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