



ECAD Updates

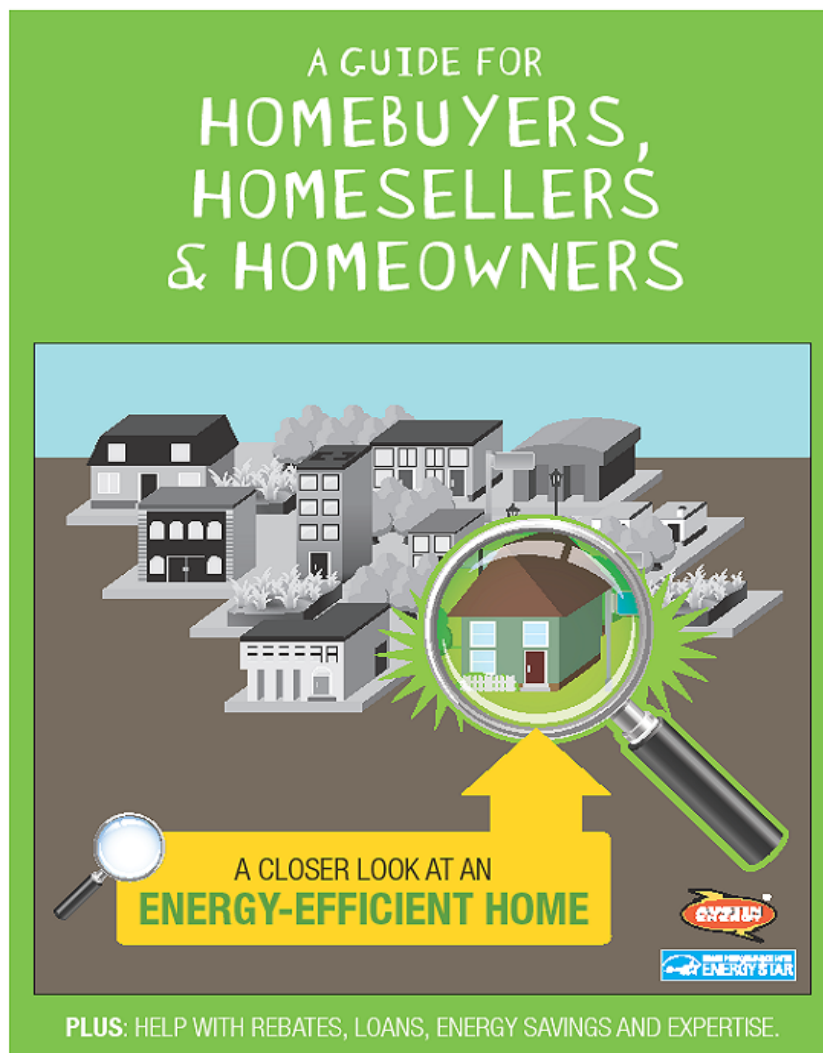
Energy Conservation Audit and Disclosure (ECAD) Ordinance Overview and Status



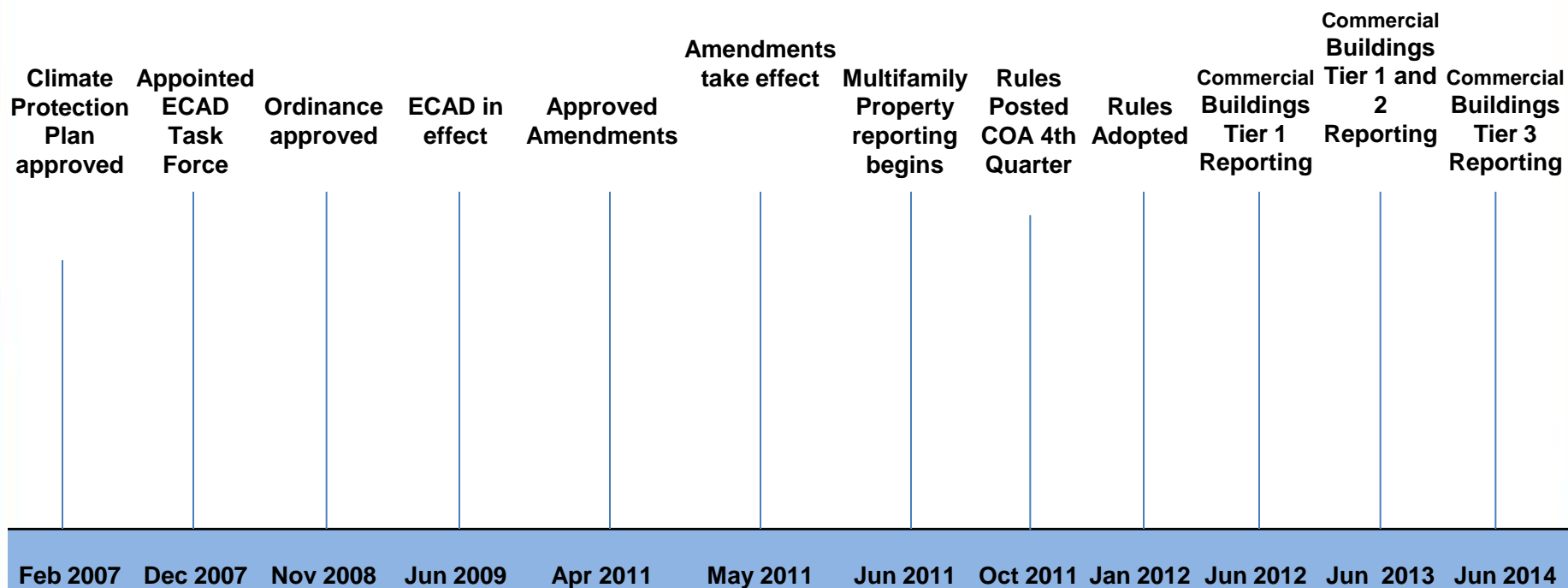
Debbie Kimberly & Tim Kisner, July 15, 2013



- “Make Austin the leading city in the nation in the effort to reduce and reverse the negative impacts of global warming.”
- Increase energy efficiency and environmental benefits
- Reduce CO₂ emissions by 365,291 metric tons by 2020
- Reduce electric bills for customers
- Increase participation in Austin Energy rebates
- Require select single family, multifamily and commercial/industrial property owners to perform and disclose results of an energy audit



ECAD Timeline



ECAD Service Companies



- Austin Energy Created Infrastructure Support
 - Home Performance Companies
 - 100 Local companies registered
- ECAD Auditors
 - 158 Local companies registered
 - 193 Local individual building industry professionals have received their certifications and registered
- Austin Energy website also provides a list of Home Performance Companies and COA ECAD Registered Energy
- Enforcement : Non-compliance with the ECAD ordinance, Austin City Code, Chapter 6-7, is a Class C misdemeanor. Customers may report violations to the City of Austin Municipal Courts for review and action.
- Austin Energy has hosted 30 Portfolio Manager training workshops.



Residential

- Requires owners of single-family homes to have energy audit performed **before the sale of their home**
- Seller must provide copy of energy audit to prospective buyer

Multifamily

- Multifamily properties ≥ 10 years old must have energy audit
- Properties required to post and provide audit results to prospective tenants
- Identified 'high energy-use' multifamily properties are required to reduce energy use by 20% through energy efficiency improvements

Commercial Buildings

- Commercial buildings ≥ 10 years old must benchmark the building's energy efficiency and report building's rating.
- EPA has provided ENERGY STAR® Online Portfolio Manager to assist in benchmarking building

All Market Classes



ECAD energy audits and rating designations completed by Market Class since 2009:

- 58% of Single Family Homes
- 66% of Multifamily Properties
- 76% of Tier 1 Commercial Properties



ECAD Single Family Audit Form



SINGLE FAMILY

Austin City Code Chapter 6-7,

Energy Audit Data

DATA SUMMARY

Submission Date: _____

PROPERTY

Austin Energy Electric Meter Number _____ Tax Assessor's Property ID _____
Owner Name _____ Year Built _____
Street Address _____ Estimated Square Footage _____
City, State, Zip Code _____

AUDITOR

Auditor _____ Phone Number _____
Company Name _____ Property Audit Date _____

WINDOWS & SHADING

Type(s) of Window(s) _____
Type(s) of Existing Solar Shading _____

ATTIC INSULATION

Attic Insulation Type _____ Average R-Value _____
Open Chase(s) _____

HEATING & COOLING AIR DUCT SYSTEM

HVAC SYSTEM: Condenser: Manufacturing Date _____ Estimated EER _____
Furnace/AH: Manufacturing Date _____ Estimated AFUE _____
Pressure Leakage _____ % Leakage _____
Duct System Type(s) _____ No Duct System _____
Enrolled in the Austin Energy Power Partner Thermostat Program _____

ADDITIONAL SYSTEM: Condenser: Manufacturing Date _____ Estimated EER _____
Furnace/AH: Manufacturing Date _____ Estimated AFUE _____
Pressure Leakage _____ % Leakage _____
Duct System Type(s) _____ No Duct System _____
Enrolled in the Austin Energy Power Partner Thermostat Program? _____

AIR INFILTRATION/WEATHERIZATION

Exterior doors: weather-stripped or not weather-stripped? _____
Plumbing penetrations: sealed or unsealed? _____

ADDITIONAL AUDIT INFORMATION

Domestic Water Heater Type(s) _____
Type(s) of Toilet(s) _____

Single Family Results



Year	Home Sales	Audit Required	Homes Audited	% Homes Audited
FY 2012	11,230	7,112	3,538	50%
FY 2011	10,370	5,856	2,895	49%
FY 2010	10,440	5,219	3,640	70%
Jun 1 thru Sep 30, 2009	4,383	2,654	2,027	76%
Total	36,423	20,841	12,100	58%

As market improved, audit compliance declined



Single Family Audit Results



Year	% of Homes receiving Audit Recommendations	RECOMMENDATIONS			
		Window Shading	Attic Insulation	Duct Sealing Replacement or Insulation	Weatherization
1-Jun-09 to Present	97%	54%	78%	74%	80%

Target 85% performance of upgrades

Year Constructed	Avg % Duct Leakage	Avg Conditioned sqft	Avg sqft/Ton	Avg HVAC Age	Avg Attic R-Value	% with Water Saving Toilets	% with Sprinklers
Prior to 1985	21%	1,603	495	9.3	20	68%	31%
1985 or After	17%	2,219	513	10.3	26		



Residential Surveys and Results



- Key Highlights: Realtors
 - ECAD benefited buyers
 - Audit identified needed changes and improvements
 - Publish results of measures taken by sellers and buyers
 - Promote rebate programs to encourage owners to perform upgrades and reap benefits before selling through:
 - COA and AE websites
 - Homeowner and Community Associations
 - Utility bill



Residential Surveys and Results



Focus Groups and Customer Surveys

- 2009 thru 2011 – Three Customer Satisfaction surveys conducted
- Summer 2012 – Resource Management Commissioners Workshops
- February 2013 – Conducted HPwES Participant Survey
- February 2013 – Energy Efficiency Stakeholder Meeting
- March 2013 – Hosted Focus Groups for ECAD Home Buyers, Sellers and Realtors

Highlights: Home Sellers

- Audit benefits for 1st time buyers
- Agents provided limited information
- “Required” to sell home
- ECAD revealed late in process
- Agents should mention when selling home

Highlights: Home Buyers

- Austin Energy should redesign ECAD audits:
 - Consumer-friendly
 - Quantify potential savings for upgrades
 - Increase ECAD marketing



Residential Surveys and Results



- Home Performance Participant Survey Recommendations
 - Enforcement lacking - ECAD audit
 - Realtors support audit, not upgrades
 - Better Coordination of outreach between COA departments
 - Improve compliance numbers with education
 - More ECAD education needed
 - 50% of respondents aware of ECAD



Next Steps: Single Family



- Continue outreach and training
 - Support GREEN MLS with Audit uploads
 - Realtor seminars on energy efficiency and ECAD through ABOR
- Market efficiency offerings to Condos and HOAs
- Finalize and implement Energy Auditor web portal
- Train Energy Auditors on new audit tool
- Implement new “Dynamic and Compelling” energy audit
- Continue to target new home owners with specific offerings based on energy audit recommendations and Better Buildings financing



ECAD Multifamily Audit Results



MULTI-FAMILY DISCLOSURE NOTICE ENERGY AUDIT RESULTS

Posted in accordance with the Austin City Conservation Code Chapter 6-7, Energy Conservation Audit and Disclosure Ordinance No. 20110421-001.

12345 APARTMENT AVENUE, AUSTIN TX 78000

STREET ADDRESS

ENERGY EFFICIENCY MEASURES EVALUATED

AUSTIN ENERGY RECOMMENDS

AUDIT RESULTS (AVERAGED)

Air Duct System

Less Than 10%

44% Leakage

Attic or Roof

Between R22-R30

R-21

Solar Screens or Window Film

On all East, South and West Windows

Needed

"Average" values are calculated from results obtained from multiple buildings and systems.

CONSTRUCTION YEAR: 1995

ENERGY UTILITIES: Electric

ENERGY AUDIT CONDUCTED BY: Sample Auditor

NUMBER OF UNITS: 229

DATE OF ENERGY AUDIT: May, 2011

DATE OF DISCLOSURE NOTICE: June 30, 2011

The Austin City Code Chapter 6-7 of the Energy Conservation Audit and Disclosure Ordinance applies to multi-family properties 10 years old and older served by Austin Energy and located within Austin city limits. Some exemptions apply. Under the ordinance, the owner of a multi-family facility must post and provide results of an energy audit of the property to current and prospective residents. Detailed copies of the audit are available upon request to the property owner/manager. For more information about the ordinance, visit austinenenergy.com/gov/ECAD, email ECAD@austinenenergy.com or call 974-7827.

ECAD Multifamily Audit Results

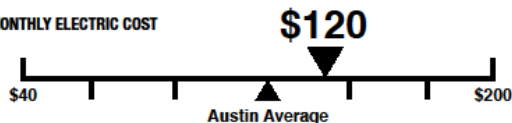


Austin City Code Chapter 6-7, Energy Conservation

ENERGY GUIDE FOR PROSPECTIVE TENANTS

2011

ESTIMATED MONTHLY ELECTRIC COST



THIS PROPERTY

This graph above represents the range of electric costs for Austin properties of a similar type to this one.

This property is:

- all electric
- built before 1985
- 800 sq. ft. average apartment size

Cost information:

- is based on this facility's average size apartment,
- based on a cost of \$0.10 per kWh, and
- is updated annually.

1,200 kWh

ESTIMATED MONTHLY ELECTRIC USE

For details, visit the web site austinenrgy.com/go/ECAD, call 482-5278 or see QR Code:



YOUR BILL

Your actual bill will depend on many factors:

- Weather (bills are higher in extreme heat and cold – especially if electric heat is used),
- Thermostat settings,
- Number of occupants,
- Lifestyle habits,
- Size and location of unit (upper floors and south and west facing units are generally warmer),
- Energy efficiency measures in place, and
- Age and type of heating/cooling equipment.

ENERGY AUDIT RESULTS FOR THIS PROPERTY:

4321 APARTMENT AVENUE, AUSTIN, TX 78700

STREET ADDRESS

ENERGY EFFICIENCY MEASURES EVALUATED	AUSTIN ENERGY RECOMMENDS	AUDIT RESULTS (AVERAGED)
Air Duct System	Less Than 15%	44% Leakage
Attic or Roof	Between R22-R30	R-14
Solar Screens or Window Film	On all East, South and West Windows	Complete

Average values are calculated from results obtained from multiple buildings and systems.

CONSTRUCTION YEAR: 1978, 1982 ENERGY UTILITIES: All Electric ENERGY AUDIT CONDUCTED BY: A Qualified Auditor
NUMBER OF UNITS: 57 DATE OF ENERGY AUDIT: September, 2011 DATE OF DISCLOSURE NOTICE: June 30, 2011

I acknowledge that I have been given an opportunity to review the results of this multi-family property's energy audit conducted in accordance with Austin City Code, Chapter 6-7.

Signature/Date

Owner's Representative

Signature/Date



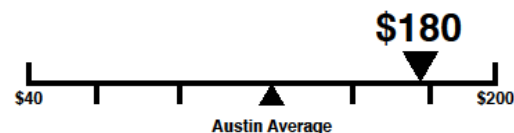
Austin City Code Chapter 6-7, Energy Conservation

NOTICE OF HIGH ENERGY USE PROPERTY

1234 APARTMENT AVENUE, AUSTIN, TX 78700

2011

ESTIMATED MONTHLY ELECTRIC COST



THIS PROPERTY

This graph above represents the range of electric costs for Austin properties of a similar type to this one.

This property is:

- all electric
- built in 1986
- 800 sq. ft. average apartment size

Cost information:

- is based on this facility's average size apartment,
- based on a cost of \$0.10 per kWh, and
- is updated annually.

1,800 kWh
ESTIMATED MONTHLY ELECTRIC USE

YOUR BILL

Your actual bill will depend on many factors:

- Weather (bills are higher in extreme heat and cold – especially if electric heat is used),
- Thermostat settings,
- Number of occupants,
- Lifestyle habits,
- Size and location of unit (upper floors and south and west facing units are generally warmer),
- Energy efficiency measures in place, and
- Age and type of heating/cooling equipment.

This property uses 15 % more energy per square foot than an average multi-family property in the Austin area. This may result in a higher electric bill than would be incurred in a similar unit in an average energy use property.

For details about energy use per square foot for Austin multi-family properties, visit austinenrgy.com/go/ECAD, call 482-5278, or see QR code:



I acknowledge that I have been given an opportunity to review the results of this multi-family property's energy audit conducted in accordance with Austin City Code, Chapter 6-7.

Signature/Date

Owner's Representative

Signature/Date

Multifamily Results



Properties with Completed Audits

FY 2012	99
FY 2011	629
Total	728

	Within Austin City Limits	Not Exempt from Audit	Audited	% Audited
FY 2012	1,372	1,096	728	66%
FY 2011	1,347	1,077	629	58%



Multifamily Results



Electric Heat

Gas Heat

Year Built	prior to 1985	1985 to 2001	2001 to 2012	prior to 1985	1985 to 2001	2001 to 2012
Audited Properties	372	74	3	221	51	7
Average Apartment Size Property (square footage)	751	813	883	747	912	1,040
Average R-Value for Ceiling Insulation	14	20	17	14	21	26
Duct Leakage Rates	36%	28%	35%	37%	45%	34%
FY2012 EUI (kWh/sqft/year)	12.03	12.05	9.89	9.58	9.13	8.41



On-site Laundry	Window Units	Furrdown Air Handling Units	Rebate Participants	Needing Window Screens	Single Pane Windows	Low - e Windows	Pitched Roofs	Flat Roofs
78%	7%	34%	16%	81%	76%	6%	86%	14%

Next Steps: Multifamily



- Continued, enhanced outreach:
 - Video to promote compliance and benefits: <https://www3.ci.austin.tx.us/ecad/>
 - Outreach and training through the Austin Apartment Association (AAA)
 - Marketing via downloadable displays and handouts for AAA and Austin Tenants Council
 - Energy guides to all 724 multifamily properties with ECAD MF Audits and EUI's for Energy Guides
- Notification Letter of Energy Use and Tenant Disclosure Form to Properties
- Coordinate stakeholder efforts



Building Category

Reporting Deadline

Tier 1 Buildings over 75K sqft

June 1, 2012

Tier 2 Buildings between 30K and 75K sqft

June 1, 2013

Tier 3 Buildings between 10K and 30K sqft

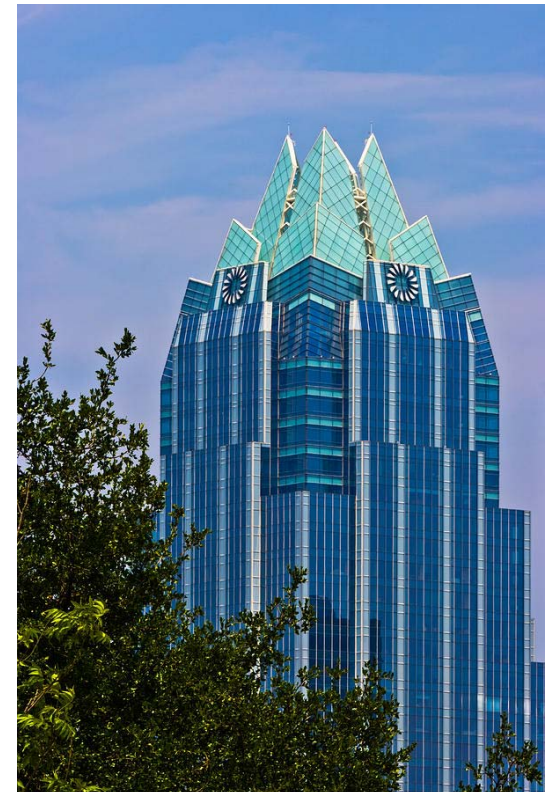
June 1, 2014



Commercial Results



	Tier 1 over 75K sqft	Tier 2 between 30K and 75K sqft	Tier 3 between 10K and 30K sqft	Avg Rating (1-100)
Total Buildings	632	877	1,534	64
Buildings Reported	478	155	33	
Square Feet in millions	81.6	8.4	0.7	



Next Steps: Commercial



- Sent Notification Letters to Tier 2 Property Owners June 2013
- Continue Portfolio Manager outreach and training webinars to commercial property owners and managers
- Continue outreach/education to building owners and property managers



Next Steps: Austin Energy



- Austin Energy solutions to improve ECAD implementation
 - Staffing enhancements for ECAD support
 - Release ECAD RFP solicitation
 - Continue Marketing, Community Outreach, Stakeholder Management, Training Workshops, Energy Use Disclosures, expertise with ENERGY STAR® Portfolio Manager
 - Coordinate activities with all ECAD customer segments
 - Standardize reporting requirements
 - Mine ECAD data for increasing energy efficiency and participation



Questions?

