

Austin's Energy Leadership

Zero Energy Capable Homes Update to the RMC

Richard Morgan

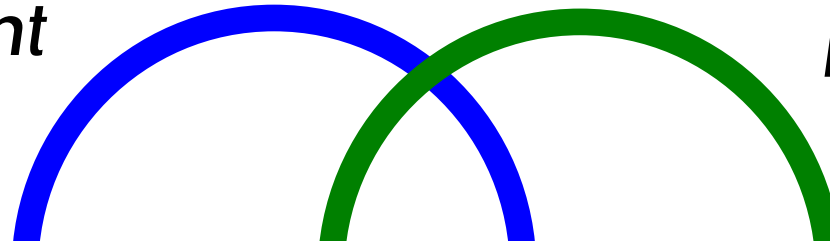
Green Building & Emerging Tech

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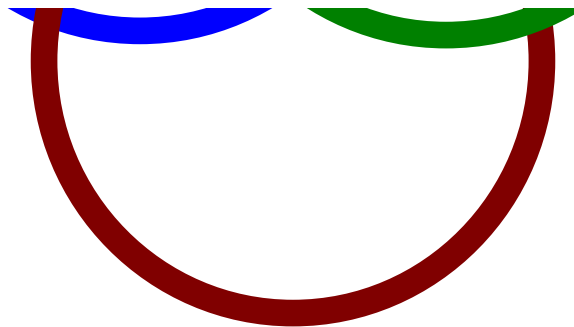
Austin Energy's Mission Statement

Environment

Economy



**Deliver clean, affordable,
reliable energy and
excellent customer service.**



Society

Zero Energy Capable Homes

- 08/2006 – 09/2007 - City Council appointed task force
- 10/2007 - Council adopts ZECH report and initial code changes (2006 IECC)
- 04/2010 - Council adopts 2009 IECC with local amendments
- Now – AEGB preparing for adoption of 2012 IECC

ZECH as defined by task force:

Homes that are energy efficient enough to be net zero energy homes with the addition of on-site or its equivalent generation. This level of energy efficiency is approximately 65% more efficient than homes built to the City of Austin Energy Code in effect in November, 2006.

Amendments to the 2006 IECC

- HVAC and envelope system testing with batch testing (none)
- R-8 duct insulation (R-6)
- HVAC sizing calcs submitted (none)
- 25% high efficacy lighting for residential (none)
- Timers required when electric water heaters allowed (none)

Amendments to the 2009 IECC

- Wall insulation R-15 or 13 + 2 (R-13)
- Window efficiency SHGC .30 (.30) U-factor .50 (.65)
- Lighting 90% high efficacy (50%)
- Hot Water – improved insulation for HW lines, max length 50' – or recirculation non-continuous system (none)

Proposed 2012 IECC

- Ceiling/roof R-value R-38 (R-30)
- Window efficiency U - .4, SHGC .25 (U-.50, SHGC .30) allows weighted averaging
- Lighting 90% high efficacy
- More restrictive hot water line insulation requirements
- Performance path compliance

Energy Savings

Code	Energy	Change	% change
2000 IECC Baseline	11,603		
2006 IECC Jan. 2008	9598	2005	17%
2009 IECC Oct. 2010	7950	1648	31%
*2012 IECC Jan. 2013	6034	1916	48%

*Values for 2012 are projections based on goals in ZECH report

- Ultimate success of ZECH will be dependent on:
 - Move to performance based code compliance
 - Updated national appliance efficiency standards
 - HVAC
 - Clothes washers and dryers
 - Dish washers
 - Ranges and ovens
 - Refrigerators

Thanks!

Questions & Discussion

Contact

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