

HERS Ratings and Code Compliance

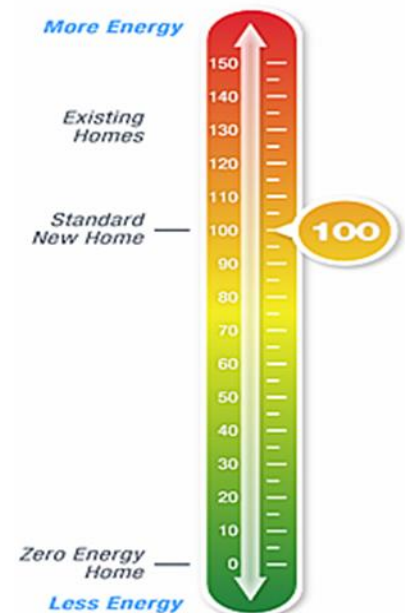
A Massachusetts Case Study





Massachusetts Energy Code History

- 6th edition of the building code had a MA specific energy code
- 7th edition adopted IECC 2006
 - Commercial bldgs. ASHRAE 90.1-2004
- 8th edition adopted IECC 2009 on July 1, 2010
 - Roughly 10-15% more efficient than IECC 2006
 - Commercial bldgs. ASHRAE 90.1-2004 remains
 - Also in 2010 the edition of the “Stretch Code” appendix
- Next update to the energy code will be on 7/1/2013
 - Adoption of IECC 2012
 - Designed to be 30% better than IECC 2009
 - Updated Stretch Code



MA Stretch Code Appendix 115/120.aa



What is the Stretch Code?

- Amendment to the base energy code
 - Residential Construction:
 - Approx. 15-20% more energy efficient than the base code (IECC 2009/AHRAE 90.1 2007)
 - Commercial:
 - 20% more energy efficient
- The current Stretch Code is similar to the 2012 IECC





What does the Stretch Code Apply to?

- Residential
 - Additions
 - Home Renovations
 - New Construction
 - Historical Home Exemption
- Commercial (5,000+sq/ft.)
 - New Construction
 - Additions
 - Renovations Exemption

Residential Stretch Code

Residential Stretch Code: New Construction

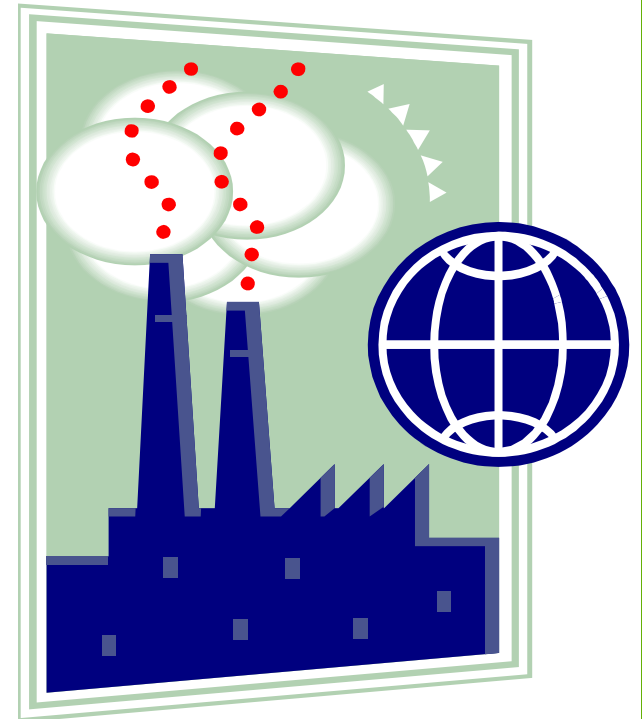
Building category	Definition	Requirements based on energy performance (can do prescriptive instead where shown)	Alternative "prescriptive" requirement – specific efficiency measures
New residential	Single-family, multi-family of 3 stories or less	HERS index 65 above 3,000 ft ² , 70 below 3,000 ft ² , certified by HERS rater; follow Energy Star thermal bypass checklist	None
Residential additions	Expansions of existing living space	HERS 65 over 3,000 ft ² , HERS 70 below 3,000 ft ² ; certified by HERS rater (or can choose prescriptive option at right)	Prescriptive option of Energy Star Homes program - same as residential rehab below
Major residential rehab/alterations	Major alterations as in existing code – excludes storm windows, reroofing, doors, etc.	HERS 80 over 2,000 ft ² , HERS 85 under 2,000 ft ² ; certified by HERS rater (or prescriptive option)	Prescriptive option of Energy Star Homes program; insulation equal to IECC 2009

Commercial 'Stretch' Appendix

- Addresses ONLY new commercial buildings and additions over 5,000 ft²
 - Renovation /Rehab exempt
- Two Options (depending on size)
 - Performance option - 20% below Code (ASHRAE)
 - Prescriptive option for most building types
5,000 - 100,000 ft²

Why Adopt the Stretch Code?

- Imported fuels
- Natural Resources
- Pollution
- Climate Change
- Grants for Municipal Projects

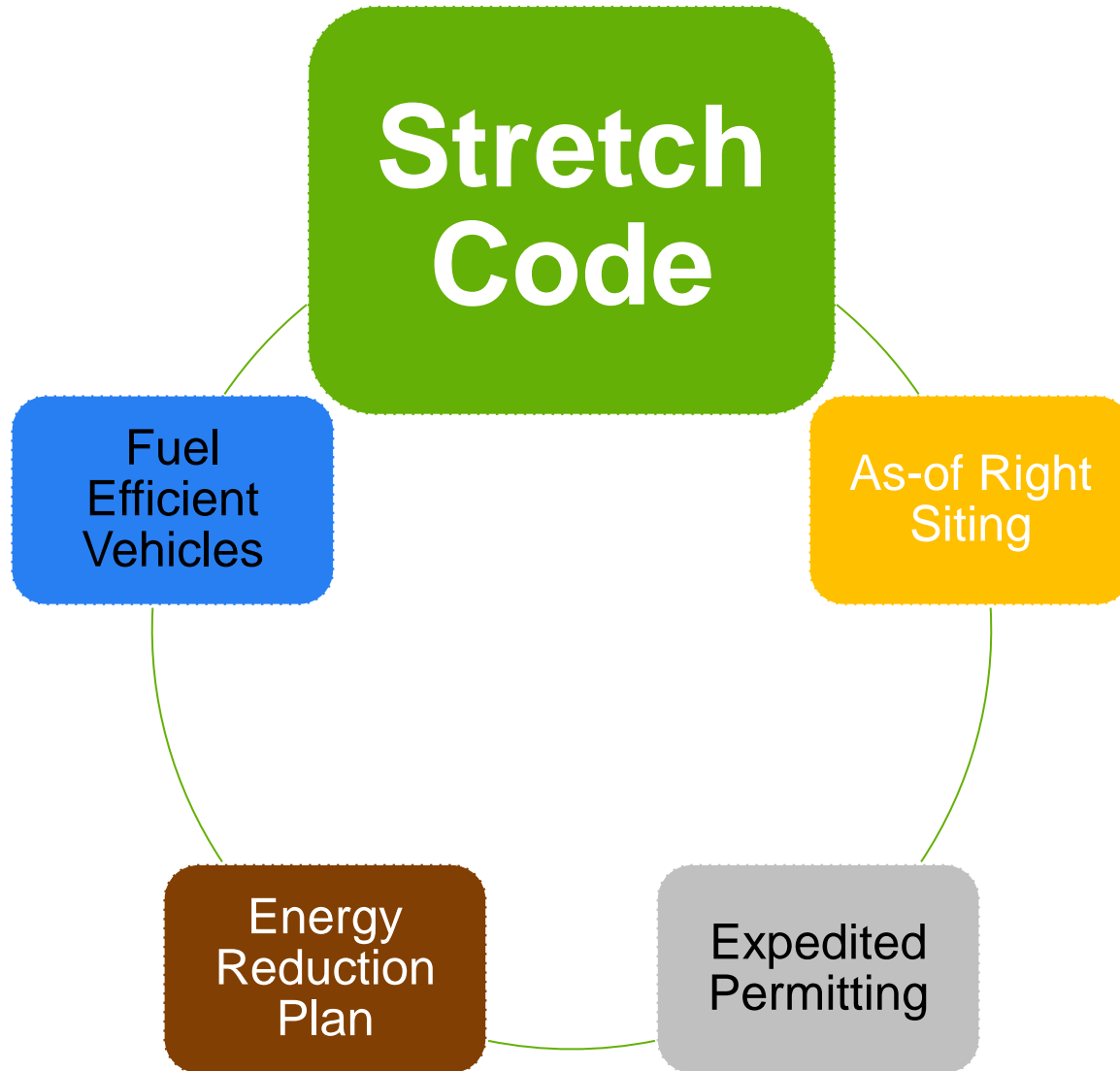




Green Communities Grant Program

- Provides up to \$10M annually in grants to ***qualifying*** communities
 - Funds allocated from RGGI auctions
- Cities and towns can apply for various projects
 - Funds all or a portion of the costs of *studying, designing, constructing and implementing* energy efficiency activities, including but not limited to:
 - Energy conservation measures and projects
 - Procurement of energy management services (ESCO)
 - Installation of energy management systems
 - Adoption of demand side reduction initiatives
 - **Adoption of energy efficiency policies. Financing the siting and construction of renewable and alternative energy projects on municipally-owned land**

MA Green Communities Program



Stretch Code Adoption Strategy

1. Determine the compliance rates to the current code
2. Review permit data to determine the type of construction occurring in the town
3. Schedule informational sessions open to the public to provide an overview of the code
4. Provide additional post educational session resources
5. Offer informational support for local government pre adoption
6. Post adoption support



THE HERS INDEX and ENERGY CODES

- The reasons why a HERS Index Score is being tied into energy codes include:
 - The inspection and testing protocols are established by RESNET's national home energy rating standards which allows for standardization
 - Decreases code interpretation
 - Raters undertake the inspection, technical support and performance testing along with providing code compliance documentation, act as an energy code resource
 - The HERS Index is a trusted measurement of the energy performance of a home. Over one million homes have been issued a HERS Index Score in the US.



Lesson Learned and Best Practices-To Increased Code Compliance

- Engage all market players affected by new code adoption, continuing to build on what is the value to adopting these codes!
- Presentations need to be informative without being too technical
- Need to identify supporters and detractors prior to any presentation to gauge level of support or concerns about code adoption
- Need to show both the benefits and challenges of adopting more stringent energy codes-Transparency is key!
- Need to provide the same level of support pre and post adoption
- Engage Raters early and often as they are integral in performance based codes

“A **good** hockey player plays where the puck is.
A **great** hockey player plays where the puck is
going to be.”

Wayne Gretzky



Questions?

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