UNDERSTANDING

Energy Performance Scoring

climate & energy

PURPOSE

To reduce the use, impact and expenses of energy in homes and businesses by measuring the performance of buildings.

HOW IT WORKS

Energy performance scores are based on inspections from qualified professionals which test or audit the expected performance of a buildings' energy use. The score serves as a benchmark for home and building owners to compare how their property is performing, and how it could perform with improvements to the structure.

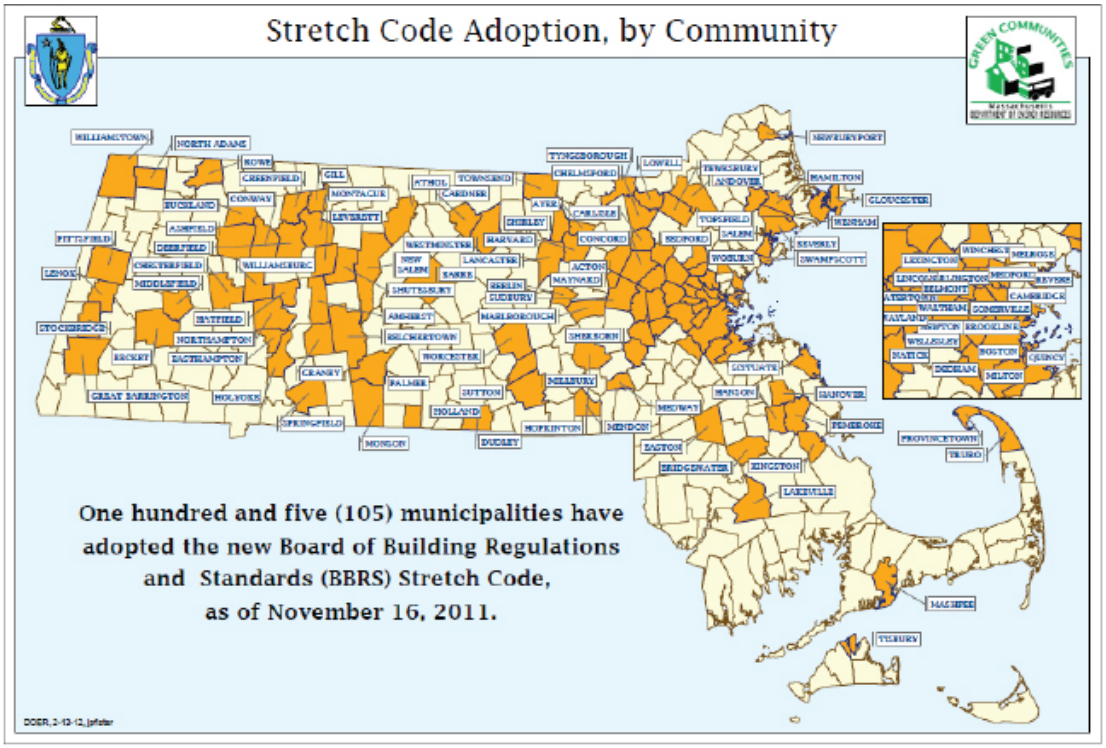
One common energy performance score used by municipalities in Massachusetts is the Home Energy Rating System (HERS), developed by the Residential Energy Services Network (RESNET), which is a national organization of energy-efficiency industries that set national standards for energy efficiency rating systems.

Through a home energy inspection and computer modeling, the HERS rating system compares the energy efficiency of the scored home with the efficiency of that home, had it been built to the standards set in the 2006 state building code. The hypothetical 2006 home score equals 100, and every point difference between the "standard" 2006 home and the scored home represents a percentage change in efficiency. For example, a home that scored 110 is 10% less efficient than the standard, while a home that scores 90 is 10% more efficient than the standard.

EXAMPLES OF WHERE STRATEGY HAS BEEN ADOPTED

The HERS performance score is being used in one hundred and five municipalities, about a third of all cities and towns across Massachusetts, to gauge compliance with the state "Stretch" Building Code, an amendment to the state building code that municipalities can voluntarily adopt as an ordinance or general bylaw. The Stretch Code requires all new homes under 2,000 square feet to have a HERS score of 70, while new homes over 2,000 square feet must have a score of 65. In other words, new homes in towns where the Stretch code has been adopted are 30% to 35% more efficient than the standard.

The stretch code is different from the basic building code because, instead of focusing on prescriptive measures – that is to say, government mandated materials and construction techniques – it relies on homes achieving specific performance scores. Homeowners therefore have more flexibility on what measures they pursue in order to achieve greater energy efficiency.



The Massachusetts Department of Energy Resources (DOER), in collaboration with the US Department of Energy and the Pioneer Valley Planning Commission, has also begun a pilot program called “Home MPG”, where residents of eight communities in the Pioneer Valley will be able to receive an energy performance score for their homes similar to a “Miles Per Gallon” score for vehicles. The Home MPG score is then used to show residents how their homes compare to state energy efficiency trends and targets, and what retrofits they can make in order to improve their score. Towns included in the pilot are Belchertown, East Longmeadow, Hampden, Longmeadow, Monson, Palmer, Springfield and Wilbraham.

LINKS TO MORE INFORMATION

STRETCH CODE:
http://www.mass.gov/?pageID=eoeeahomepage&L=1&L0=Home&sid=Eoeea and search for “stretch code”

RESNET:
http://www.resnet.us/home-energy-ratings

HOME MPG:
http://www1.eere.energy.gov/buildings/betterbuildings/ neighborhoods/massachusetts_sep_profile.html

FOR MORE INFORMATION, PLEASE CONTACT

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