

AN ORDINANCE ADOPTING THE STRETCH ENERGY CODE

WHEREAS the Massachusetts Board of Building Regulations and Standards adopted Appendix 120.AA, known as the Stretch Energy Code that provides a more energy efficient building code option for cities and towns than the base code; and

WHEREAS it is the goal of the City of Methuen to encourage energy efficiency using many strategies, both voluntary and required; and

WHEREAS stretch code adoption is mandatory for designation as a Green Community under the Green Communities Act passed by the Legislature and signed into law in 2008, and under such designation the City will qualify for financial incentives offered thereunder;

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Methuen that Chapter 10 of the Methuen Municipal Code, is hereby amended as follows:

At the end of Section 10-1, add the following new Section:

SECTION 10-2

1) Definitions

International Energy Conservation Code (IECC) - The International Energy Conservation Code (IECC) is a building energy code created by the International Code Council. It is a model code adopted by many state and municipal governments in the United States for the establishment of minimum design and construction requirements for energy efficiency, and is updated on a three-year cycle. The baseline energy conservation requirements of the MA State Building Code are the IECC with Massachusetts amendments, as approved by the Board of Building Regulations and Standards.

Stretch Energy Code - Codified by the Board of Building Regulations and Standards as 780 CMR Appendix 115.AA of the Massachusetts building code, the Stretch Energy Code is an appendix to the Massachusetts building code, based on further amendments to the International Energy Conservation Code (IECC) to improve the energy efficiency of buildings built to this code.

2) Purpose

The purpose of 780 CMR 115.AA is to provide a more energy efficient alternative to the Base Energy Code applicable to the relevant sections of the building code for new buildings.

3) Applicability

This code applies to residential and commercial buildings. Buildings not included in this scope shall comply with 780 CMR 115.AA, as indicated.

4)Stretch Code

The Stretch Code, as codified by the Board of Building Regulations and Standards as 780 CMR Appendix 115.AA, including any future editions, amendments or modifications, is herein incorporated by reference into the City of Methuen Municipal Code, Chapter 10, Section 10-2.

The Stretch Code is enforceable by the inspector of buildings or building commissioner and effective as of January 1, 2019.

First Read: October 1, 2018 Adopted: October 15, 2018 Effective: November 15, 2018

I do hereby certify that at a meeting of which a quorum was present, the foregoing ordinance was adopted by the Methuen City Council by a unanimous vote on October 15, 2018.

Approved under MHRC Sec. 3-6
Date: _____ Approved: _____ Approved: _____ James P. Jajuga Major

10-18-12



City of Methuen, Massachusetts

Department of Economic & Community Development

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James P. Jajuga *Mayor*

William J. Buckley Director

MEMORANDUM

TO:

Methuen City Council

FROM:

William J. Buckley, Directo

CC:

James P. Jajuga, Mayor

DATE:

September 26, 2018

RE:

Green Communities

The Department of Economic & Community Development (DECD) has been working with the Commonwealth's Department of Energy Resources (DOER) exploring Green Communities designation for the City of Methuen.

We will be presenting the benefits of Green Communities and the criteria necessary to receive this designation at the October 1, 2018 City Council meeting.

Attached here is a brief overview of Green Communities and a DRAFT Ordinance adopting the Stretch Energy Code which is also on the October 1, 2018 agenda. As you will find, adoption of the Stretch Energy Code is a requirement for designation.

We look forward to presenting the opportunities that Green Communities designation would provide to the City of Methuen. Our application is due October 26, 2018.

Thank you.

Green Communities Designation & Grant Program

Program Overview

- 210 cities and towns
- Over \$50 million in grants awarded
- ~\$10.7 million in projected savings/yr
- ~28,091 metric tonnes CO_{2e} in GHG reductions (equal to 5,914 cars)



Program Requirements

Communities must meet 5 criteria to be designated:

- 1) Provide as-of-right siting in designated locations for renewable/alternative energy generation, research & development, or manufacturing facilities.
- 2) Adopt an expedited application and permit process for as-of-right energy facilities.
- 3) Establish an energy use baseline and develop a plan to reduce energy use by twenty percent (20%) within five (5) years
- 4) Purchase only fuel-efficient vehicles
- 5) Set requirements to minimize life-cycle energy costs for new construction; one way to meet these requirements is to adopt the new Board of Building Regulations and Standards (BBRS) Stretch Code

Benefits to Methuen:

- Approximately \$266,000 designation grant
- Eligible for annual \$250,000 competitive grants
- Annual energy savings that free up city resources to help fulfill core mission
- A more flexible, comprehensive approach to facilities and infrastructure management
- Greenhouse gas reductions

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2018 Stretch Energy Code - Methuen

Massachusetts gives communities two options for their building energy code – a base energy code or an optional stretch energy code. Municipalities can choose to adopt the stretch energy code by vote of City Council or Town Meeting article and it can be rescinded by those legislative bodies. Adoption of the Stretch Code will allow the City of Methuen to apply for designation as a Green Community and thus be eligible for grants to pay for energy saving projects in municipal buildings.

On January 1, 2017, both the Base Energy Code as well as the Stretch Energy Code were updated. The difference between the two will be much smaller than in the past. In fact, the new Stretch Code will be incorporated into the new Base Code; no more extensive and separate language to describe it. Basically, new residential construction in a Stretch Code town will need to follow the Performance Path of the Base code and achieve a HERS rating of 55 rather than following the Prescriptive Path of the Base Code. The updated Stretch Code will also apply to new commercial buildings over 100,000 square feet. Additions, renovations, and repairs to residential or commercial buildings are not applicable to the updated Stretch Code, only the Base Energy Code is applicable.

A key feature of the Stretch Energy Code is that it is performance based. It requires new homes to meet a HERS (Home Energy Rating System) index rating target, rather than requiring the installation of specific levels of energy efficiency for each building element (e.g. windows, wall insulation, roof insulation, furnace etc). The HERS rating is a measure based on a home's total expected energy use and overall efficiency. It is calculated by a certified HERS rater using accredited software, which uses information on the design of the energy systems in a home to calculate the annual energy needs of the home and give it a rating score.

One benefit of using HERS ratings for compliance with the Stretch Energy Code is that builders do not have to install specific energy efficiency measures, rather they have the flexibility to choose which energy efficiency measures to install, and how to design the home in order to meet the HERS rating target. It is also a way to ensure that homes are well built. As part of the HERS rating, the HERS rater tests the home for air leakage and inspects insulation installation, which helps ensure that the home performs as designed.

The Base Energy Code in Massachusetts is updated approximately every 3 years, the Stretch Energy Code must be updated periodically in order to maintain the "stretch." When the stretch energy code was first adopted, it was characterized as adopting the next version of the base energy code early, which is how it turned out.

The Board of Building Regulations and Standards (BBRS) and the Department of Energy Resources (DOER), two state entities responsible for the building energy codes, have completed work on a new stretch energy code. Basically, it requires that the performance path of the standard building code be followed in Stretch Code municipalities for new homes and for large new commercial buildings. The new Stretch Code will add an additional cost to new home construction which will be primarily for the services of the HERS Rater. This is generally in the \$700 - \$1300 range per residence. There are also typically significant annual energy bill savings that more than tip the balance to give homeowners a net savings every year. Some, if not all, of the HERS Rater costs may be reimbursed to the builder through the MassSave program.

Once adopted, the stretch energy code would take effect on the date identified in the local City Council's ordinance adopting the Stretch Code. Currently 241 communities, representing more than half of the state's population (over 65%), have adopted the Stretch Energy Code. Nearby communities that have adopted it include Andover, North Andover, Haverhill, Merrimac, Lawrence, Lowell, Tewksbury, and Tyngsborough. Most builders in the area are familiar with the requirements of the Stretch Energy Code. Many builders say that the energy efficiency trade-off features of the Stretch Code makes it easier to fulfill customers design wishes than following the Base Energy Code prescriptive requirements.

