

## 2023 Stretch and Opt-In Specialized Building Codes Frequently Asked Questions

### 1. What are the building energy code options for municipalities in Massachusetts?

Building codes govern energy efficiency requirements in new construction and major renovations, which help save money on energy costs and also reduce greenhouse gas emissions. Massachusetts municipalities can follow one of three building codes. These codes are the Base Code, the Stretch Code, and the Specialized Code. The minimum or 'base' energy code is the least stringent and latest version of the national model code. Shutesbury adopted the Stretch Code at a Town Meeting in 2010.

### 2. What is the Stretch Code?

The [Stretch Code](#) is published and maintained by the Department of Energy Resources. Based on our status as a Green Community, Shutesbury is automatically subject to Stretch Code updates, the most recent of which took effect on January 1, 2023. The Stretch Code is a more energy efficient alternative to the Base Code. The 2023 update is the 3rd major update to the original 2009 Stretch Code. The Stretch Code increases the energy efficiency requirements for all new residential and commercial buildings, as well as large additions (adding an area  $\geq 1,000$ -sf or doubling the size of a conditioned floor area). As of January 2023, 300 out of 351 Massachusetts cities and towns have adopted it. Using tax credits and Mass Save incentives, it can be less expensive to build and maintain Stretch code homes heated and cooled with heat pumps than those heated with natural gas built under the Base Code.

### 3. What is the Specialized Code?

The Specialized Code would help achieve MA greenhouse gas emission limits and ensure new construction is consistent with the net-zero Massachusetts economy projected for 2050. The Specialized Code is effective at reducing greenhouse gas emissions through a combination of reduced energy use and efficient electrification. Use of fossil fuels such as gas, propane, or biomass is permitted but comes with additional requirements for on-site solar generation and pre-wiring for future electrification of any fossil-fuel-using equipment.

### 4. Does this apply to me?

The Stretch Code only applies to new residential and commercial construction, as well as certain renovations and additions. These building codes do not affect existing homeowners unless they undertake a major renovation (i.e., adding an area  $\geq 1,000$ -sf or doubling the size of a conditioned floor area). The Stretch Code does not apply to modifications such as a deck or an unheated garage, which are unconditioned, or a 900 square foot addition to a 1,000 square foot home. The Specialized Code applies only to new residential and new commercial construction.

### 5. How is the Specialized Code different from the Stretch Code?

The Specialized Code has accelerated adoption of more efficient Home Energy Rating System (HERS) thresholds and provides three paths for low-rise residential compliance, including a zero-energy pathway (with solar photovoltaic). It also requires new homes over 4,000 sq ft to follow the all-electric or zero-energy pathway. Solar photovoltaic is required for any new construction utilizing fossil fuels for heating. The Specialized Code for multi-family housing four stories and above follows a Passive House standard, which results in ultra-low energy buildings (see DOER Technical Guidance, below). Passive houses are so efficient they can generate more energy than they consume.

## **6. My homesite is in the woods – do I have to cut down trees to meet the onsite solar requirements?**

There are exceptions to the onsite solar requirements:

- Roof area of new one-and two-family homes and townhouses is oriented between 110 degrees and 270 degrees of true north and is under 600 square feet
- Roof area is in full or partial shade for more than 70 percent of daylight hours annually

## **7. What is the anticipated cost of building under the Stretch Code?**

Designed and constructed in accordance with Stretch Code standards, low-rise residential buildings built with all electric heating and cooling (via air or ground-sourced heat pumps) will typically cost less to build and operate than those built with fossil-fuel heating. One reason for this is that heat pumps can be used for both heating and central air conditioning, whereas fossil fuel heated new homes typically require a separate air conditioning system. DOER has commissioned studies to analyze the change in construction costs related to building to the Stretch Code for several sizes and types of residences, and those studies generally indicate that construction and operating costs are lower under the Stretch code standards with fully electric heating and cooling via heat pumps. These case studies are available on DOER's website here:

<https://www.mass.gov/doc/residential-stretch-code-costs-and-benefits-case-studies/download>

## **8. How would a town or city adopt the Stretch and Specialized Codes?**

As a town we are working to decide if we wish to opt in to the Specialized Code. Green Communities, such as Shutesbury, automatically follow updates to the Stretch Code. The Specialized Code, however, must be adopted by a decision of its governing body—in Shutesbury's case, by a vote at Town Meeting.

## **9. How are Stretch and Specialized Codes implemented and enforced?**

Once the Stretch or Specialized energy code is adopted by a town or city, it supplements the previous energy code language and becomes the binding energy code language for building projects in that municipality. Implementation and enforcement of the code is similar to existing code, where the developer is responsible for submitting documentation of compliance to the building inspector for review, and the building inspector conducts a site review.

## **10. Where can I learn more about the Stretch and Specialized Codes?**

Massachusetts DOER, 2023, "Technical Guidance, Massachusetts Stretch Energy Codes: A reference and instructional guide for Massachusetts Energy Stretch and Specialized Codes," <https://www.mass.gov/doc/2023-stretch-code-technical-guidance-document-main-text/download>

Massachusetts DOER, "2023 Stretch Energy and Municipal Opt-In Specialized Building Code Frequently Asked Questions," <https://www.mass.gov/doc/2023-stretch-energy-and-municipal-opt-in-specialized-building-code-faq/download>

Massachusetts DOER, Stretch Energy Code Development 2022, <https://www.mass.gov/info-details/stretch-energy-code-development-2022>

"Northampton City Council approves opt-in specialized stretch code," The Reminder, Sept. 12, 2023

<https://www.thereminder.com/localnews/northampton/northampton-city-council-approves-opt-in-specializ/>