

**Town of Weston
Municipal Opt-in Specialized Energy Code
Builder’s Information Session**

Wednesday, November 1, 2023

Questions & Answers from the Session

Watch the replay of this presentation on Weston Media: <https://imd0mxanj2.execute-api.us-west-2.amazonaws.com/ssr/watch/6543dd3278d0c80008b7b6d6>

Residential Building Questions

Does the specialized code affect existing homes?

No. The specialized code applies to new construction only.

Does the specialized code affect historic homes or major renovations?

No. The specialized code applies to new construction only.

How many new homes are constructed in Weston each year?

Approximately 20 new homes are built in Weston, on average, each year. The majority of new homes built in Weston are larger than 4,000 sqft.

Between 1/1/21 and 12/31/22 there were 44 new homes constructed in Weston. Many of those homes were custom builds and private sale data is not available. For those that were sold, the average sale price was \$3.9M.

How does an all-electric home perform during a power outage?

Generators powered with fossil fuels are allowed in all-electric homes under the Specialized Code. Whole-home backup batteries are an option as well. In addition, high energy efficiency all-electric homes maintain comfortable conditions indoors for longer periods of time than conventionally built homes. DOER provided formal backup in the FAQ: *see question R18 on page 10 of the “DOER Stretch Energy and Municipal Opt-in Specialized Building Code Frequently Asked Questions” document referenced below.*

Would trees need to be cut down to meet the rooftop solar requirements on a new construction home under the Specialized Code?

No. The rooftop solar requirement for new homes in the Specialized Code provides exemptions where solar access is less than 70% or if the roof is too steep.

Does the electric grid have the capacity for all-electric homes?

Yes. Eversource is the electricity provider for the Town of Weston. Eversource has filed plans to increase grid capacity by 180% to support “full electrification” and a “greener grid” by 2050. *More information on electric load impact can be found in the resource list below.*

New buildings built to either the Stretch Code or Specialized Code will have significantly lower peak heating and peak cooling loads than existing conventionally built buildings. The comparison is true when comparing new construction under the most recent code (2019) in comparison to the updated Stretch and Specialized Code because of the efficiency standards written into updated (2022) code language.

Do all-electric homes require larger (400-amp) panels and/or transformer upgrades?

New homes do not necessarily need a 400-amp panel. This is because all-electric homes built to the new code have dramatically lower peak heating loads than conventionally built homes. For large new homes in Weston, they are likely already using 400-amp panels due to their size, so no additional upgrades above existing standard practice are required.

This is true because:

- Homes already need the electricity supply capacity to handle the cooling load, this must be sized for a 200-amp panel.
- The air conditioning units and furnace would be replaced with a high-efficiency heat pump that would have lower heating and cooling electricity demand overall. This results in lower peak electric rating needed, which means not only would there be no net increase in amperage, there would also be lower peak demand costs.
- The main increase in electrical peak demand is the EV-ready requirement at 50-amps for a single-family home. *Note that this is not a Specialized code requirement* – this is the same in the base energy code and stretch energy code. Also, adding a 50-amp charger is not the same as adding 50-amps to the peak load on the home. The builder can use a couple of strategies to keep the EV charger on the same circuit as a dryer, for example – with a switch that prevents both being used at the same time, or by using a ‘smart electric panel’ such as those offered by SPAN and Schneider electric – that manage the internal load of the home.

What incentives is the Town / State offering for following these new requirements?

While not specifically tied to the Specialized Code, MassSave does offer rebates and incentives for all electric homes and homes designed with Passive House standards. There are also incentives for the commercial properties as well. See “Resource List” section below.

Commercial / Affordable Housing Questions

Does the specialized code affect historic municipal or commercial properties?

No. The proposed specialized code applies to new construction only.

How many municipal buildings has the Town of Weston built in the last 5 years? How many new buildings will be built in the future?

No new municipal buildings have been built in Weston the last 5 years. There have been three major renovations: Case House School Administration Building, Weston Arts and Innovation Center, and Josiah Smith Tavern. At this time, there is a new fire station building being proposed for design funds. In addition, the Weston School Committee is entering into initial resource and needs assessment for the Middle School and High School campus.

Do 40B developments need to comply with the Specialized Code, or can they avoid it as a zoning bylaw?

Yes, 40B developments still comply with all applicable building codes – including the Specialized energy code in relevant communities.

How will the Specialized Code impact future municipal buildings?

The Town of Weston Permanent Building Committee is responsible for oversight and management of the construction, enlargement, major alterations, and reconstruction of all municipal and school buildings. PBC currently uses high efficiency and LEED Silver standards.

High-efficiency net-zero municipal buildings are becoming standard practice in comparable communities across the Commonwealth. With a combination of incentives from MassSave and other funding sources, net-zero municipal buildings are often more cost effective to build and maintain over the lifecycle of the building in comparison to conventional and/or mixed fuel buildings.

Resource List

DOER 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>

DOER Study on cost implications of the Specialized Code: <https://www.mass.gov/doc/summary-of-stretch-code-study-energy-efficiency-analysis-feb-2022/download>

For more on the **electric load impact (or non-impact) of the Specialized code**, you can read the full report. Scroll down page slightly to "stretch code study report":

https://www.mass.gov/info-details/final-stretch-code-guideline-materials?auHash=cyHdJ0-aKeSKJLbQxVafygKhfAQT_ONW7kiF-sgWGMk#stretch-energy-code-study-report-

DOER Final Stretch Code Guideline Materials: https://www.mass.gov/info-details/final-stretch-code-guideline-materials?auHash=cyHdJ0-aKeSKJLbQxVafygKhfAQT_ONW7kiF-sgWGMk#stretch-energy-code-study-report-

Sign up for DOER energy code email updates:

<https://app.e2ma.net/app2/audience/signup/1965182/1356542/>

Code language, case studies, detailed technical information here: <https://www.mass.gov/info-details/stretch-energy-code-development-2022>

Information on MassSave Rebates for energy efficient homes:

- <https://www.masssave.com/saving/residential-rebates/all-electric-home>
- <https://www.masssave.com/saving/residential-rebates/passive-house-incentives>

Rocky Mountain Institute study on health risks of gas stoves in homes (study is linked in the article on this page): <https://rmi.org/gas-stoves-health-climate-asthma-risk/#:~:text=New%20peer%2Dreviewed%20research%20from,gas%20stove%20in%20the%20home>

Additional Trainings

Energy Code Training (free via Mass Save®): <https://www.masssave.com/en/learn/partners/energy-code-training-and-events>

Contractor Training: <https://www.masssave.com/en/saving/residential-rebates/passive-house-training>

Passive House MA: <https://phmass.org/>

- MassSave Incentives for Passive House: <https://phmass.org/masssave/>
- Updated Building Codes: <https://phmass.org/buildingcode/>