

Overview of the Specialized Stretch Code

Economic Development Committee Meeting - September 19, 2023

An updated Building Energy Stretch Code, effective July 2024, was adopted by MA for all Green Communities as part of the MA Decarbonization Roadmap Act signed in 2021. The Act provides a plan for MA to use cost-effective and equitable strategies to reduce greenhouse gas emissions by at least 85% by 2050.

The City of Worcester is further recommending adoption of the opt-in *Specialized* Stretch Code, to meet its own commitments in the Green Worcester Plan, which recommend achieving the same emission goals, but five years earlier - in 2045.

Background: Worcester became a Stretch Code community when it adopted the original Energy Stretch Code on May 4, 2010, as part of its designation as a Green Community. This code “stretches” energy code requirements beyond the base code, requiring higher building efficiency for new construction and major renovations. The State has now provided an option to adopt an even more sustainable energy code through an opt-in Specialized Stretch Code (SSC).

The principal difference between the Updated Stretch Code (effective July 2024) and the Specialized Stretch Code (recommended to become effective July 2024), is that the latter applies to new building construction only and requires those buildings that use fossil fuels to be pre-wired for future full building electrification and Solar PV in most cases. Virtually all other requirements, including those for existing buildings, stay aligned with the Stretch Code.

Stretch Code Versions Comparison		
Energy Source(s)	Updated Stretch Code (effective July 2024)	Specialized Stretch Code (recommended July 2024)
<i>Existing Residential or Commercial: Additions & Alterations</i>	Same as Stretch code	Same as Stretch code* ¹
New Residential or Commercial Construction: All-Electric	High energy efficiency requirements (HERS 45) or Passive House	
New Residential Construction: Mixed-Fuel	Based on HERS ratings or Passive House certification)	Single family: + Solar PV (min 4 kW for <4,000 SF, or to net-zero ² for >4,000 SF) All buildings: + pre-wiring for future building electrification + Passive house for Multi-family over 12,000 sf but not solar if under 4 stories
New Commercial Construction: Mixed-Fuel	Based on Passive House, or TEDI or ASHRAE 90.1 code paths	+ pre-wiring for future building electrification + Solar PV for buildings based on available roof area and parking areas

¹ Exemptions exist for historic homes where work would damage the historic fabric of the building

² As the roof area allows

FAQs:

Public Support: The City hosted a public meeting on August 2, 2023 with over 45 attendees and the majority were in favor of adoption.

Cost Implications: Designed and constructed in accordance to Stretch code standards, low-rise residential buildings built with all electric heating and cooling (via heat pumps) will typically have both lower first-costs and operating costs than those built with fossil fuel heating according to MA Department of Energy Resources studies. These studies account for the incentives that are available through MassSave and available tax rebates.

Preparing for the SSC: While some members of the building community expressed concerns with additional time needed to prepare for the SSC, please note that the updated Stretch Code, effective July 2024, for which the building community will have to be ready regardless, will primarily differ from the SSC in only 2 additional aspects – electrification pre-wiring and solar PV for mixed fuel HVAC installations.

Compliance Options: There are various pathways to compliance with the Code. The use of fossil fuels such as gas, oil, 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.

Implications of Delaying Adoption of the SSC to January 2025 (from June 2024): First, adopting in July avoids the potential high cost of future electrification when the mixed fuel HVAC needs to be replaced (it's much less expensive to pre-wire during construction than as a retrofit) and second, it removes the significant liability risk to developers for those potential future costs.