


Residential Stretch Energy Code Updates


Effective January 1st, 2023

The newly updated Stretch Energy Code now requires certain **home additions and/or alterations to comply** with the same code requirements of a new construction home, including a **HERS Index Score**. This means additional energy upgrades of the existing home above and beyond the immediate work area may be required.

A **HERS** (Home Energy Rating System) Index is the industry standard by which a home's energy efficiency is measured, which must be completed by a third-party energy consultant.

The following alterations to existing homes will require the dwelling unit to meet the HERS Index listed in Table 1 below:

 **Additions** that are over 1,000 square feet or exceed 100% of the conditioned floor area of the existing home

 **Alterations** that are over 1,000 square feet, exceed 100% of the conditioned floor area, or exceed 50% of the total building area.
(Level 3 Alteration)

Home Fuel Source	New Construction			Additions/ Alterations
On-Site Clean Energy Application	Previous Stretch Code	Updated Stretch Code	7/1/2024 Stretch Code	Updated Stretch Code
None (Fossil Fuels)	55	52	42	52
Solar	60	55		55
All-Electric	60	55	45	55
Solar & All Electric	65	58		58

For questions on the new 2023 Massachusetts Stretch Code, please contact
Harwich's Building Department at 508.533.3253

Potential Impacts on Existing Homes



Contractor/residents must hire a HERS Rater to act as a third-party energy consultant for reporting, testing, and inspections. Estimated cost: \$2000- \$3000.



The HERS Rater will need to work off detailed plans of the entire home for which additional design services may be needed.



A HERS Rater will determine the full range of energy upgrades to the existing home to achieve the required HERS Index score.

Additional upgrades may include some or ALL of the following:

- Demolish and re-insulate existing walls, ceilings, and/or floors
- Upgrade HVAC system and water heater
- Air seal home to new construction level of air tightness
- Replace windows/doors

Burdens in the form of delays may occur, such as:

- Additional time needed to hire contractors and complete work
- Inconvenience of invasive work
- Potentially having to temporary relocate during renovations

Sample Stretch Code Project Comparison - Single Family Homes <i>(based on current projects in Medway)</i>				
Project Description	Project Cost	Existing Home Area	Year Built	Cost of Additional Stretch Code Upgrades
Two-Story Addition of 1,440 SF	\$250,000	1,872 SF	1998	\$50,000 +
Full Interior Alteration of 2,731 SF	\$250,000	1,713 SF	1950	\$20,000 - \$30,000
Finish Basement Alteration of 1,500 SF	\$42,000	2,644 SF	2001	\$50,000 +
Alteration of Detached Garage to Dwelling Unit of 1,200 SF	\$141,000	1,200 SF	2006	\$15,000 - \$25,000

2023 Stretch Energy Code Language

R502.1.1 Large Additions: Additions to a dwelling unit exceeding 1,000 sq ft or exceeding 100% of the existing conditioned floor area, shall require the dwelling unit to comply with the maximum HERS ratings for alterations, additions or change of use shown in TABLE R406.5.

R503.1.5 Level 3 Alterations or Change of Use: Alterations that meet the IEBC definition for Level 3 Alteration, exceeding 1,000 sq ft or exceeding 100% of the existing conditioned floor area, shall require the dwelling unit to comply with the maximum HERS ratings for alterations, additions or change of use shown in TABLE R406.5.

TABLE R406.5 MAXIMUM ENERGY RATING INDEX

Clean Energy Application	Maximum HERS Index score^{a, b}		
	New construction until June 30, 2024	New construction permits after July 1, 2024	Major-alterations, additions, or Change of use^c
<i>Mixed-Fuel Building</i>	52	42	52
Solar Electric Generation	55	42	55
<i>All-Electric Building</i>	55	45	55
Solar Electric & <i>All-Electric Building</i>	58	45	58

^a Maximum HERS rating prior to onsite renewable electric generation in accordance with Section R406.5

^b The building shall meet the mandatory requirements of Section R406.2, and the building thermal envelope shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or Table R402.1.4 of the 2015 International Energy Conservation Code.

^c Alterations, Additions or Change of use covered by Section R502.1.1 or R503.1.5 are subject to this maximum HERS rating.