

The Massachusetts Model

HERS-Based Compliance Under the Stretch and Specialized Energy Codes

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Abstract

Massachusetts illustrates how verified whole-home energy performance can serve as a central element of residential energy-code compliance. In municipalities that have adopted the Stretch Energy Code, the Energy Rating Index (ERI) pathway uses a RESNET-certified HERS® Index determined in accordance with ANSI/RESNET/ICC Standard 301.

The framework combines defined HERS targets with flexibility in how builders meet them. It also distinguishes mixed-fuel and all-electric construction and provides adjusted targets for qualifying embodied-carbon measures. Municipalities adopting the Specialized Code add requirements addressing electrification, solar, EV readiness, and net-zero-aligned construction.

This paper describes the Massachusetts approach and the lessons it offers other jurisdictions. It focuses on the policy framework; the supplied state summary does not include Massachusetts rating volumes, measured savings, or construction-cost outcomes.

1 National Relevance of the Massachusetts Model

Massachusetts demonstrates a different application of performance-based compliance from the Texas model. HERS is integrated into the Stretch and Specialized Code framework, with applicability tied to municipal code adoption. The model shows how a common, independently verified performance metric can support state energy-policy goals while allowing builders to select the combination of measures appropriate to a home.

For other states, the central lesson is to define both the performance target and the scope of the pathway clearly. A HERS target is most useful when builders and code officials understand which code applies, which building types are covered, and which additional requirements remain in effect.

2 Code Architecture and Performance Targets

2.1 A defined role within the Stretch Code

The Massachusetts Stretch Energy Code is based on the 2021 IECC and 2021 IRC Chapter 11, with Massachusetts amendments. For most new homes and dwelling units, compliance is demonstrated through Passive House certification, the ERI/HERS pathway, or an applicable Specialized Code pathway. A conventional prescriptive pathway is not generally available for ordinary new dwelling units under the current Stretch Code.

2.2 Whole-home HERS targets

Under the ERI pathway, both the proposed design and the completed home must achieve the applicable maximum HERS Index in 225 CMR 22. The supplied summary identifies the following general new-construction thresholds:

Building type	General maximum HERS	With qualifying embodied-carbon measures
Mixed-fuel	42	45
All-electric	45	48

Table 1. General new-construction HERS limits identified in the supplied Massachusetts summary. Source: 225 CMR 22.00, as cited in that summary. Adjusted limits require qualifying measures; they are not automatic.

These thresholds do not vary by municipality where the applicable provisions govern. Municipal adoption determines the code framework that applies; it does not create a different local HERS target within that framework.

2.3 Additional Specialized Code requirements

Municipalities adopting the Specialized Code add electrification, solar, EV-readiness, and net-zero-aligned requirements. The Specialized Code generally requires Passive House certification or HERS-based compliance. Meeting a HERS target must therefore be considered together with the other applicable provisions.

2.4 Independent verification

Massachusetts defines the ERI as a RESNET-certified HERS Index under Standard 301. The HERS system combines energy modeling with field inspections, diagnostic testing, and quality assurance, providing an established basis for verifying the completed home.

3 Conclusion

Massachusetts uses HERS-based compliance to connect whole-home performance with a broader energy-code framework. Its relevance lies in how a standardized rating and verification system supports defined targets while preserving design flexibility. Other states can consider those principles while adapting the scope and requirements to their own markets and policy goals.

Sources

1. State Summaries for HERS_ERI-UT_MA_NC, supplied document, Massachusetts ERI/HERS Pathway section; cites 225 CMR 22.00 and the Massachusetts building energy-code overview.
2. The Texas Model, RESNET, August 2026; used as the structural and visual model and for general discussion of HERS verification.

This paper adapts the supplied materials and does not constitute an independent update of code or incentive-program requirements.