The Passive House Network

PATHWAY TO THE
POLICIES WE WANT

1 ALTERNATE PATHWAYS

Remove the barriers created by the need to develop two separate energy models. Approve use of Passive House models for alternate compliance pathway.

2 PASSIVE HOUSE INCENTIVES

Implement incentives to build industry capacity, expand product supply chains, and strengthen market confidence in Passive House.

3 ADD PH REACH & STRETCH CODES

Create OPTIONAL reach or stretch codes for local jurisdictions to adopt and implement.

4 TRANSFORM BASELINE CODES

Once sufficient market confidence, professional competence, and a robust product supply chain are in place, the baseline codes can be revised to deliver Passive House outcomes.

Stepping Up to Passive: Policies We Want

2023

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Stepping Up to Passive | Policies We Want

A Passive House Network Brief

PHN's 2022 *Policy That Works* report identified a number of regions where step and reach codes accelerated market transformation through the adoption and implementation of policies supporting Passive House buildings. The report identified successful, repeatable patterns across a number of regions. In this brief, we expand on them, highlighting pathways every region should consider.

Approval of alternate compliance pathway:

Removing the requirement to develop to two separate energy models is a *foundational move* that can be done prior to implementing any incentive or reach code. It allows project design teams to reduce cost and complexity, and avoids conflicting directions generated by two differing modeling programs.

Alternative Paths: In 2012, Massachusetts approved an alternate compliance pathway that allowed PHPP and Wufi Passive to be submitted for energy code compliance in lieu of the state's standard compliance model. This set the foundation for their incentive program to move forward. PHN has developed an overview of all jurisdictions where an alternate compliance pathway is already in place, with links to the specific code language adopted.

Passive House Incentives:

Incentives are a direct way to overcome market inertia. They build industry capacity, expand product supply chains, and strengthen market confidence in delivering Passive House projects within the respective region. To be effective, incentives must be substantial enough to motivate developers to consider the shift. Incentives are an essential step prior to reach or step code launches. These incentive programs may be structured in multiple ways:

Passive-House-Specific Incentives: MassSave developed a Passive-House specific incentive program that offered significant financial support to multifamily projects targeting Passive House certification. This incentive package included three tiers:

- Professional training subsidies
- Preliminary modeling support for feasibility studies
- Project construction subsidies to reduce first costs

Competitive Awards Programs as Incentives: NYSERDA's 'Buildings of Excellence' awards program offers substantial financial support to applicants who demonstrate willingness to strive for excellence in the design, construction, and operation of clean, resilient, and carbon neutral-ready multifamily buildings. While this program does not specify Passive House certification, most of the applicants choose this pathway to demonstrate excellence. This program was inspired by the Brussels' Environment 'Exemplary Buildings' program, where Passive House also emerged as the front-runner program of choice to demonstrate performance.

City-led Incentives: These may be structured as zoning incentives with increased height allowances, setback encroachments, or re-zoning allowances that improve financial outcomes for developers to offset increased first costs. For example:

- The City of Vancouver implemented zoning relaxations and incentives specific to Passive House that increased development of Passive House before a step code was introduced.
- The Somerville, Massachusetts, 2019 Zoning Ordinance includes Passive House as a qualification for density bonuses and requires Passive House or comparable performance in specific Master Plan districts. It offers Passive House certification as an alternative pathway for Green Building compliance for all large projects.
- New York City, with NYSERDA, launched a $15 million program funding all-electric Passive House certified multifamily buildings.

Outlier Incentives: In Colorado, Xcel Energy has provided a significant incentive to homeowners affected by the Marshall Fire disaster. This incentive offers $37,500 to owners who choose to rebuild their home to meet Passive House standards.

All-electric senior supportive housing, Newton, MA

Cover image: Affordable housing, New York City

Revised Reach & Stretch Codes

Once a critical mass of both professionals and projects have been developed in a region, policymakers can begin formal integration of Passive House into regulatory frameworks via reach or stretch codes. Examples of this have already been implemented in North America:

MA's Opt-In Stretch Code: Massachusetts' Department of Energy Resources (DOER) revised their reach code structure to replicate the metrics and targets used in Passive House. They simultaneously developed a set of 'opt-in' stretch codes available for adoption by local jurisdictions. They include a requirement for multifamily buildings over 12,000 SF to deliver Passive House certification for energy code compliance. Details of this overhaul process and opt-in stretch code are outlined here. For commercial buildings, the opt-in stretch code utilizes Thermal Energy Use Intensity (TEDI) metrics and requirements that are near Passive House thresholds. Consequently, many teams are simply designing the commercial buildings to Passive House because it provides a clear compliance pathway.

The BC Energy Step Code: British Columbia took the opportunity to overhaul their reach code structure by removing the option for each jurisdiction to develop custom, incremental improvements to the baseline code. Instead, they established an end goal target for all buildings with a deadline for this target to be achieved. They then 'backcast' the five interim steps that jurisdictions could adopt on their journey to the end goal. The BC Energy Step code revised the target metrics required for buildings to show compliance, using the opportunity to transform the tools and methodologies used by the industry to design buildings. TEDI replaced Energy Use Intensity as the new metric, which was determined to be better able to deliver emissions reduction targets required for the BC region. Certified Passive House was deemed an equivalent to their top step. This provided clarity to developers and manufacturers on where their regulators were heading. It has accelerated market transformation in this region. Many developers have chosen Passive House certification ahead of the 2032 deadline.

High School and Elementary School, Brooklyn, NY

Revised Baseline Codes

Once the marketplace has been acquainted with the targets, metrics, and methodologies common to Passive House, the baseline code may be revised to deliver Passive House outcomes. This fourth step is most successfully implemented when the previous three steps are complete. Market confidence, professional competence, and a cost-effective product supply-chain must be in place before a robust transformation can be successfully rolled out. This process — start to finish — took only seven years to accomplish in Brussels and is nearly complete in Scotland. Massachusetts is following this same path. Cities with locally controlled energy codes, such as Denver, are in a similar position to implement this step ahead of state and national codes.

PHN encourages all jurisdictions to follow these steps to deliver similar, reliably excellent outcomes.

PHN's Policy Committee
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