



New York State Energy Code Change: 2025 ECCC of NYS Effective: January 1st, 2026

New York State will soon roll out the **2025 Energy Conservation Construction Code (NYSECCC)**, **which goes into effect in 2026**. For homeowners and builders in Climate Zone 4A (Long Island), this means some updates to the rules compared to the 2020 code. The new standards, based on the 2024 International Energy Conservation Code (IECC) with adjustments specific to New York State, are designed to improve energy savings, promote cleaner electric systems, and support the state's efforts to cut carbon emissions. **One of the biggest changes is that starting December 31, 2025, new residential buildings under seven stories will no longer be allowed to install fossil fuel equipment.** To help you stay on top of these changes, we've outlined the key updates to **insulation and building envelope requirements, heating and cooling systems, energy modeling, and testing.**

1. Insulation & Air Sealing

- Improved R-values for walls, floors, foundations, etc. (as per table R402.1.3)
 - Example: wood framed walls prescriptively have R-30 cavity insulation, R-20 + R-5 continuous, R-13 cavity + R-10 continuous, OR R-20 continuous.
- More stringent air-sealing inspection requirements to reduce air infiltration.

2. HVAC Systems

- New efficiency specifications for HVAC systems, including highlights on new electric heat pumps over traditional fossil-fuel burning systems.
- Enhanced controls for HVAC systems.
- Ventilation requirements expanded to ensure dedicated continuous mechanical fresh air.

3. Water Heating

- Increased efficiency benchmarks for water heating equipment.
- Electric-ready or heat pump water heating encouraged where possible.

4. Renewable Energy & Solar Readiness

- Enhanced solar-ready requirements: new detached single-family homes, two-family dwellings, and townhouses must now provide a designated roof area for future solar installation, unless an exemption applies.
- Electrical infrastructure must be able to support future solar installations.

5. Lighting and Appliances

- Stricter requirements for high-efficacy lighting.
- Provisions for efficient ENERGY STAR appliances.

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6. Energy Compliance Pathways

- Stricter energy compliance pathways (ERI/HERS, performance or prescriptive).
- Reduced maximum Energy Rating Index (ERI) thresholds.
- Stricter trade-off provisions to ensure that deficiencies in one area cannot be too easily compensated by overperformance in another.
- Mandatory additional energy efficiency credit requirements.

Conclusion:

The 2026 code shifts residential construction toward greater energy efficiency, all-electric readiness, and the integration of renewable technologies. Builders, architects, and homeowners can expect tighter requirements for insulation and building envelopes, updated standards for heating, cooling, and water systems, and new mandates to include infrastructure that supports solar power and electric appliances.

PERSCRPTIVE INSULATION REQUIREMNTS AS PER NYSECC

[NY] TABLE R402.1.3—INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT*			
CLIMATE ZONE	4	5	6
Vertical fenestration <i>U</i> -factor	0.27	0.27 ^g	0.27 ^g
Skylight <i>U</i> -factor	0.50	0.50	0.50
Glazed vertical fenestration SHGC	0.40	0.40	NR
Skylight SHGC	0.40	NR	NR
Ceiling <i>R</i> -value	49	49	49
Insulation entirely above roof deck	30ci	30ci	30ci
Wood-framed wall <i>R</i> -value ^e	30 or 20&5ci or 13&10ci or 0&20ci	30 or 20&5ci or 13&10ci or 0&20ci	30 or 20&5ci or 13&10ci or 0&20ci
Mass wall <i>R</i> -value ^f	15/20	15/20	15/20
Floor <i>R</i> -value ^h	30 or 19&7.5ci or 20ci	30 or 19&7.5ci or 20ci	30 or 19&7.5ci or 20ci
Basement wall <i>R</i> -value ^{b,e}	15ci or 19 or 13&5ci	15ci or 19 or 13&5ci	15ci or 19 or 13&5ci
Unheated slab <i>R</i> -value & depth ^c	10ci, 4 ft	10ci, 4 ft	10ci, 4 ft
Heated slab <i>R</i> -value & depth ^c	R-10ci, 4 ft and R-10 full slab	R-10ci, 4 ft and R-10 full slab	R-10ci, 4 ft and R-10 full slab
Crawl space wall <i>R</i> -value ^{b,e}	15ci or 19 or 13&5ci	15ci or 19 or 13&5ci	15ci or 19 or 13&5ci