

New York Passive House, Inc

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June 1, 2023

City of Yes for Carbon Neutrality Zoning Text Amendment comments New York Passive House

NYPH strongly supports the spirit of the City of Yes for Carbon Neutrality (COYCN). In particular, we would like our members to include the following points in community board testimony:

1. We believe revising Zone Green to a 5% FAR bonus for an “ultra-low-energy building” will be an effective, performance-centered way to promote the adoption of high performance buildings and expedite New York City’s ability to meet its decarbonization goals.
2. We strongly advocate for the addition of a certified Passive House pathway for compliance with the “ultra-low-energy building” definition and qualification for the Zone Green FAR bonus (both PHI or PHIUS should be identified as acceptable certifications).

Summary of NYPH proposal for the addition of a Passive House compliance pathway for the Zone Green deduction. (Not necessary to include in testimony):

Recommend adding the following compliance pathways:

1. A Passive House building to be certified under either a Passive House Institute (PHI) or Passive House Institute US (PHIUS) protocol.
 - a. Opportunities:
 - i. Passive House protocols offer a proven method for significant reduction in building energy demand.
 - ii. By leveraging this third-party protocol you reduce the review and verification burden on DCP and DOB.
 - iii. Alignment with efforts made by organizations like HPD and NYSERDA to promote the use of Passive House as a pathway to Carbon Neutral Ready Buildings.
 - b. Approach:
 - i. At plan review include either:
 1. A report from the team’s Passive House Certifier demonstrating compliance with performance criteria required for certification.
 2. A completed version of the EN1 form submitted to DOB for energy compliance. The EN1 form would need to be adjusted to be compatible with PHI or PHIUS metrics. NYPH would be glad to work with the DOB to propose additions to the EN1 form for documenting PHI or PHIUS energy models.

In addition to primary comments NYPH also supports key changes included in the document that will encourage the development of Passive House , and other high-performance buildings in the City of New York:

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1. *12-10, Accessory use (21)(4)*: Allowing energy storage systems as an accessory use will simplify the incorporation of battery systems that can be used for grid-resiliency, load-shedding, and emergency backup power.
2. *12-10, Energy Infrastructure Equipment*: Including “all types of energy generation systems, or energy storage systems, unless specific rules are otherwise specified” future-proofs this concept by including innovative future systems within this zoning definition.
3. *12-10, Qualifying Exterior Wall Thickness (b)*: allowing a floor area bonus for re-cladding existing buildings provides options to designers beyond over-cladding without sacrificing a floor area bonus.

Additional in-line comments:

12-10 Definitions

Qualifying Exterior Wall Thickness

(b) for re-cladding projects

Comments:

Include a provision within this definition for projects that add insulation to the interior side of the exterior wall. This is a common practice in Passive House and high-performance retrofits, especially those subject to Landmarks Preservation Commission review. In these instances, floor area is lost in an effort to improve thermal performance without compromising the exterior appearance of the building.

Ultra-low-energy building

(b)(2) for all other buildings

Recommend adding the following compliance pathways, see above.

(b)(2)(i) EUI no greater than 50% below ASHRAE 90.1-20xx

Comments:

1. Clarify version year. COY Project Description notes this requirement is intended to align with NYC Local Law 31 of 2016 which states ASHRAE 90.1-2013. Depending on the version year being referenced a 50% reduction may not be practically achievable.
2. Concern over evergreening this statute. If you assign a specific version year you will be locking in performance thresholds, however, if you set this requirement to track another energy code, NYCECC for example, the 50% reduction will quickly lose practical achievability.

(b)(2)(ii) a source energy use intensity of not more than 38 kbtu/sf/year

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Comments:

1. We recommend replacing this compliance option with the Passive House certification option described above. This will achieve the same fundamental energy savings, but using a verifiable standard, proven to improve occupant comfort in addition to energy efficiency.
2. Should the source EUI of 38 kbtu/sf/year option not be replaced by PH certification, it should be noted:
 - a. For Passive House buildings in this climate, the 38 kbtu/sf/year threshold is a starting point that is modified based on building uses, density, and other factors.
 - b. By addressing only Source EUI, more buildings will comply simply by being built further in the future when the grid is cleaner. (e.g. A building with a Site EUI of 30 may have a Source EUI of 50 in 2023 and 36 in 2035 based solely on improvements to the grid). To account for this, Passive House differentiates between a building on a “non-renewable grid” from one on a “renewable grid”. The 38 kbtu/sf/year threshold is very high-performance in a “non-renewable” grid, but may not be so in a renewable grid.
 - c. The zoning text should reference specific guidelines or an existing standard for calculating this EUI to ensure consistency in results.

23-12 Permitted Obstructions in Open Space

(g)(2) for all other buildings

Comments:

Recommend increasing to 18'-0" above the level of adjoining grade. Our experience has shown that 15'-0" is not sufficient to fit large equipment below solar canopies. The solar panels and rails often account for ~18" of thickness above 2'-0" of horizontal steel support. This leaves less than 12'-0" clear below the canopy which is often not enough for large roof-mounted equipment like ERVs set on dunnage.

Thank you for your time and consideration.

Sincerely,

NYPH Local & State Policy Working Group