



7180 Republic Airport,  
Farmingdale, New York 11735  
P: 631.963.5454  
F: 631.777.8281

### **Comments of Neal Lewis on the New York State Energy Master Plan.**

I am submitting these comments in my capacity as Executive Director of the Sustainability Institute at Molloy College. A core mission of the Sustainability Institute is to foster informed debate concerning issues of environmental sustainability on Long Island. Molloy College is committed to academic independence and raising the level of public discourse through the free exchange of differing ideas. The recommendations included in these comments do not necessarily represent the opinions of the administration or Board of Trustees of Molloy College.

The New York State Energy Master Plan should include a recommendation to update the State Energy Conservation Code to greatly increase the energy efficiency required by both new residential and commercial construction.

I would like to familiarize the State Energy Planning Board with the experience of ten Long Island towns that recently amended their residential building codes to require new residential buildings of 4 units or less to meet Energy Star Labeled Homes standards. The initial results have been very positive. There have been no undue delays, implementation difficulties, or cost increases associated with the new more stringent standards and verification requirements. This measure will result in significant reductions in energy use, greenhouse gas emissions, and building lifecycle costs for owners and residents, with only very small marginal increases in construction costs, and *no significant increase in costs to taxpayers and ratepayers.*

For the residential energy code, the State should follow Long Island's lead and upgrade the Energy Conservation Code to require energy efficiency equivalent to or greater than the current New York Energy Star Labeled Homes requirements. It should also require HERS (Home Energy Rating System) rating or equivalent verification of all new residential buildings to ensure that energy efficiency standards are being achieved.

I have attached the Town of Southampton's code, which contains their Energy Star Homes requirement. I consider it a good model, and potential the most stringent residential energy code in the nation, as it requires greater efficiency ratings for larger homes.

The commercial code should also be updated Statewide at a minimum to require energy efficiency equivalent to or greater than the most recently published ASHRAE Standard 90.1 - 2007, and preferably to set a significantly higher standard. Ideally the code should require new commercial buildings to demonstrate 20% less energy use than the ASHRAE standard, as verified by energy modeling software approved by the State. New York

Energy Conservation Code is currently based on the 2004 version of ASHRAE 90.1 (incorporated in the 2006 International Energy Conservation Code). According to the U.S Department of Energy, a number of states already have codes that meet or exceed the ASHRAE 90.1 - 2007 standard. The LEED standard adopted by the U.S. Green Building Council requires at least 10% improvement over the 2007 version of ASHRAE 90.1 for any LEED certified building. ASHRAE has stated a goal of making the 2010 standard 30 percent more stringent than the 2004 version. It is clear that such levels of efficiency are technologically possible and economically viable.

For both residential and commercial codes, there should be a mandatory system of third-party verification that energy conservation standards are being met. This will ensure that the energy savings promised by any code requirements are being realized.

Energy efficiency is easiest and most economical to achieve in the initial design and construction of new buildings. Later retrofits are more disruptive, less cost effective, and may never be done. By lagging in adoption of the most up-to-date and stringent Energy Conservation Codes, New York State is allowing the continued construction of new homes and buildings that will waste energy for decades to come.

Respectfully submitted,

Neal Lewis

**Town of Southampton**

**[Adopted 5-23-2006 by L.L. No. 25-2006; amended in its entirety 7-22-2008 by L.L. No. 45-2008]**

§ 123-36

**Definitions.**

§ 123-37

**Energy Star® requirements.**

**[Amended 9-9-2008 by L.L. No. 57-2008; 9-23-2008 by L.L. No. 58-2008]**

A.

Effective October 1, 2008, any new dwelling shall be built to comply with the Long Island Power Authority (LIPA) New York Energy Star® labeled home program in accordance with the requirements contained herein:

(1)

Dwellings with up to 3,500 square feet of conditioned space shall achieve a minimum home energy rating of 84 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 80 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)]; or shall meet the requirements of the Builder Option Package as established by LIPA or equivalent methodologies as determined by LIPA or its designee.

(2)

Dwellings with between 3,501 and 4,500 square feet of conditioned space shall achieve a minimum home energy rating of 87.0 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 65 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)] or equivalent methodologies as determined by LIPA or its designee.

(3)

Dwellings with over 4,501 square feet of conditioned space shall achieve a minimum home energy rating of 90.0 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New

York [which corresponds to an index of 50 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)] or equivalent methodologies as determined by LIPA or its designee.

B.

Effective October 1, 2009, any new or substantially reconstructed subject dwelling shall be built to comply with the Long Island Power Authority (LIPA) New York Energy Star® labeled home program in accordance with the requirements contained herein:

(1)

Dwellings with up to 3,500 square feet of conditioned space shall achieve a minimum home energy rating of 84 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 80 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)]; or shall meet the requirements of the Builder Option Package as established by LIPA or equivalent methodologies as determined by LIPA or its designee.

(2)

Dwellings with between 3,501 and 4,500 square feet of conditioned space shall achieve a minimum home energy rating of 87.0 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 65 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)] or equivalent methodologies as determined by LIPA or its designee.

(3)

Dwellings with between 4,501 and 6,500 square feet of conditioned space shall achieve a minimum home energy rating of 90.0 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 50 or less as defined in the 2006 Mortgage Industry National Home Energy Rating Systems Standards, promulgated by the Residential Energy Services Network (RESNET)] or equivalent methodologies as determined by LIPA or its designee.

(4)

Dwellings with over 6,500 square feet of conditioned space shall achieve a minimum home energy rating of 95 on the current expanded home energy rating system (HERS) scoring system adopted by the State of New York [which corresponds to an index of 25 or less as defined in the "2006 Mortgage Industry National Home Energy Rating Systems Standards," promulgated by the Residential Energy Services Network (RESNET)] or equivalent methodologies as determined by LIPA or its designee.

C.

Effective January 1, 2009, prior to the issuance of a building permit for any new dwelling, the applicant shall submit a certificate from a certified home energy rating system (HERS) rater that the house design has received the necessary tentative home energy rating score, per Subsection [A](#), based on a review of the plans and specifications. Effective October 1, 2009, prior to the issuance of a building permit for any new or substantially reconstructed subject dwelling, the applicant shall submit a certificate from a certified home energy rating system (HERS) rater that the house design has received the necessary tentative home energy rating score, per Subsection [B](#), based on a review of the plans and specifications.

D.

Prior to the issuance of a certificate of occupancy for any building permit issued under the above permitting regulations for any new or substantially reconstructed subject dwelling approved as an Energy Star® labeled home, the applicant shall certify that the dwelling satisfies the program requirements by obtaining a home energy rating certificate that demonstrates compliance with the criteria outlined in the applicable Subsection [A](#) or [B](#) above, including all performance and field testing verifications.

E.

The owner of a structure may apply for a waiver from the requirements of this section on the basis that the structure is of historic significance. The owner seeking a waiver shall make application to the Town Landmarks and Historic Districts Board for such waiver. The Landmarks and Historic Districts Board shall grant the application for the waiver if the applicant shall demonstrate that meeting the requirements of this section would have an adverse impact on the historical nature of the structure, and there are no practicable alternatives that would allow the applicant to comply with the requirements of this section and maintain the historical significance of the structure.

F.

The owner of a structure or proposed structure may apply for a downgraded home energy rating requirement by written application to the Chief Building Inspector on the basis that there exists practicable difficulties specific to the site, construction or design elements encountered in the course of design or construction. Upon receipt of the written request, the Chief Building Inspector shall determine whether there is a showing of need for relief from strict compliance to the standards enumerated in Subsection [A](#) or [B](#) above. In determining the conduciveness of a property and practicable difficulties, the Chief Building Inspector shall consider the following factors: the location and condition of any existing structure or structures, the size of the lot, the topography of the lot, the existence and extent of clearing restrictions on the property, the proximity of trees and shade on the lot, lot coverage restrictions on the property and such other and further factors or conditions that exist at the property that may impact strict compliance with the standards enumerated in Subsection [A](#) or [B](#) above. If the Chief Building Inspector determines that a waiver is appropriate, the property owner shall provide a practicable plan for alternative methods of energy conservation conducive for the location or make a showing that there are no practicable energy conservation systems conducive to the location. Upon receipt of the property owner's plan, the Chief Building inspector shall grant a waiver, in writing, from the requirements of this section, conditioned upon the implementation of the alternative methods proposed by the owner or such other practicable conditions as required by the Chief Building Inspector.

§ 123-38

Name: Neal  
Email Address: nlewis@si.molloy.edu  
Title: Lewis  
Organization: Sustainability Institute @ Molloy College  
County: Suffolk

Comment: I am submitting these comments in my capacity as Executive Director of the Sustainability Institute at Molloy College. A core mission of the Sustainability Institute is to foster informed debate concerning issues of environmental sustainability on Long Island. Molloy College is committed to academic independence and raising the level of public discourse through the free exchange of differing ideas. The recommendations included in these comments do not necessarily represent the opinions of the administration or Board of Trustees of Molloy College. The New York State Energy Master Plan should include a recommendation to update the State Energy Conservation Code to greatly increase the energy efficiency required by both new residential and commercial construction. I would like to familiarize the State Energy Planning Board with the experience of ten Long Island towns that recently amended their residential building codes to require new residential buildings of 4 units or less to meet Energy Star Labeled Homes standards. The initial results have been very positive. There have been no undue delays, implementation difficulties, or cost increases associated with the new more stringent standards and verification requirements. This measure will result in significant reductions in energy use, greenhouse gas emissions, and building lifecycle costs for owners and residents, with only very small marginal increases in construction costs, and no significant increase in costs to taxpayers and ratepayers. I have attached the Town of Southampton's code, which contains their Energy Star Homes requirement. I consider it a good model, and potential the most stringent residential energy code in the nation, as it requires greater efficiency ratings for larger homes. The commercial code should also be updated Statewide at a minimum to require energy efficiency equivalent to or greater than the most recently published ASHRAE Standard 90.1 - 2007, and preferably to set a significantly higher standard. Ideally the code should require new commercial buildings to demonstrate 20% less energy use than the ASHRAE standard, as verified by energy modeling software approved by the State. New York Energy Conservation Code is currently based on the 2004 version of ASHRAE 90.1 (incorporated in the 2006 International Energy Conservation Code). According to the U.S Department of Energy, a number of states already have codes that meet or exceed the ASHRAE 90.1 - 2007 standard. The LEED standard adopted by the U.S. Green Building Council requires at least 10% improvement over the 2007 version of ASHRAE 90.1 for any LEED certified building. ASHRAE has stated a goal of making the 2010 standard 30 percent more stringent than the 2004

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