

NYStretch-Energy Code RESIDENTIAL WORKING GROUP Meeting

June 12, 2017 | 2:00 pm – 4:00 pm

Location: WebEx meeting

PARTICIPANTS

Remote: Priscilla Richards, Jim Edelson, Mark Lyles, Jeff Domanski, Tom Eisele, Joe Dolengo, Kevin Stack, Joe Hitt, Dave Abrey, Joe Hill, John Ciavacco, Chris Sgroi, Kerry Jane-King, Michelle Tinner

Absent: Tony Lisanti, Pasquale Strochia, Lou Petrucci, Steve Rocklin

AGENDA

2:00 – 2:15 Welcome / Roll Call / Review Workgroup Objectives and Schedule Jeff Domanski (IBTS)
Jim Edelson (NBI)

2:15 – 2:30 2018 IECC and ERI discussion Jim Edelson and Mark Lyles (NBI)

2:30 – 3:30 Residential NYStretch Measures and “Packages” - Scoping and Discussion (NBI)

3:30 – 3:45 Additions and Remodels

3:45 – 4:00 Discussion and Wrap-up – Next Steps

MINUTES

Jeff Domanski took roll call and provided an overview of the agenda.

Jim Edelson provided a summary of the NYStretch 2018 project that was conveyed in the 6/8/17 Advisory Group meeting, including indication that:

- The proposed NYStretch 2018 code will exceed the anticipated 2019 New York Energy Conservation Construction Code, with a goal of achieving 20% greater savings than the 2015 IECC based on modeling.
- NYStretch 2018 will focus on energy measures; other “green code” measures will be addressed separately.
- The development of NYStretch 2018 is using a process similar to that used to develop the 2016 NYStretch-Energy code, with the addition of a Multifamily working group.

Discussion/Stakeholder input

- Michele Tinner asked if the NYStretch 2018 Residential code will include low-rise residential. Jim indicated that they are working with other locations on transition of multifamily to commercial code and this will be discussed in depth in the multifamily working group.

2016 Residential Results

Jim shared the results from the 2016 NYStretch residential code efforts for the three climate zones (see slide for detail), noting the 2015 IECC HERS score was low, and lower in 2018. A split was developed at

3000 square feet with modeling results above and below this volume presented. The NYStretch 2018 scores are presented in the “2018NYStretch - Residential Code Strawman.pdf” shared with the Working Group.

2018 IECC and ERI Values

Jim then shared the 2018 proposed renewable energy/on-site generation provisions, which include a ‘significant development’ represented by use of RESNET referenced language and indication of impact of proposals (see slide for details).

Discussion/Stakeholder input

- Jim indicated that the inclusion of renewables was discussed at Kansas City ICC meeting, with i agreement to ensure solar allowances did not detract from envelope.
- Discussion of which renewables were included within the proposed language indicated that while solar thermal was included, ground source heat pumps were not, but comments could be submitted to ANSI 301 open process. John Ciavacco suggested that “renewable thermal” is indicative and that heat pumps should be included.
- The similarity of HERS and ERI was discussed, with Jim indicating they are essentially equivalent (referencing IECC RE166, ANSI 301). Joe Hill indicated that US DOE said they’re not the same but considers the systems interchangeable. This will be examined in 2018 discussions.

Action item

- NBI to watch the development of renewables language in 2018 ICC code process for potential relevance for Stretch Code efforts.

Proposed Residential Provisions

Mark Lyles (NBI) next led discussion of the proposed code language presented in the strawman document with the working group prior to the meeting (see “2018NYStretch - Residential Code Strawman.pdf”). Mark noted this document has overlap with the Multifamily working approach.

Discussion/Stakeholder input

- The proposed “**Prescriptive Package**” is proposed to be based on modeling of “particular” ERI indices as a baseline. It was acknowledged that the 2018 ERIs are higher due to inclusion of “backstops” and the HERS index is changing often. Jim indicated that the proposed combination of modeling changes and performance options is more restrictive than prescriptive code last time.
- The proposed “**Performance Path**” options are (a) use of climate zone dependent ERI indices or (b) use of modeling software approved by Passive House Institute US (PHIUS).
- Discussion of potential inclusion of Passive House approaches within the framework noted that this approach was excluded from NY Stretch 2016, and that it is an easier fit within residential framework than commercial because of difference in average building size. Tom indicated NYC interest in supporting this approach and observation of use of Passive House standard by smaller structures are applying to PH standard. Michelle stated that national standard is being used by many. A conflict persists between advocates of the two approaches.
- Discussion of “**Prescriptive requirements**” included recognition that the window U-factors are more stringent than the 2015 values, the increase in high efficacy lighting requirements from 75% to 90% which came from Title 24 approach, and building size- and story-dependent hot

water distribution system and heat recovery requirements as an alternative to mandating efficient fixtures.

- Jim and Mark then discussed the Oregon and Washington State referenced example tables provided in the strawman document which can help achieve additional 5-10% savings. It was noted that the Oregon approaches gives builders opportunity to mix/match options, i.e., ability to select an envelope enhancement option and one from other conservation measures. It was noted that Washington State approach utilizes credit scoring approach and the table showed range of credits for different measures (0.5 – 2.0 per action) which came from NEEA and could give designers and others more options. NBI indicated the proposed NYStretch 2018 approach is closer to the Oregon model and that a comparable climate zone approach would apply in New York.
- The proposed approach to building “Additions” was then discussed, which are also based on Oregon and Washington state approaches. NBI indicated the Oregon options could be framed as ‘choose three of four measures’ to give flexibility. Joe Hill anticipated pushback on some items, such as ability of many existing properties to pass blower test requirement. John noted lack of occupant education option which could have greater impact than measures presented; Jim speculated it may not be possible to include occupant education in building code.
- The group then engaged in discussion of renewable energy approaches, including role in achieving a future net zero requirement. John indicate that Germany requires a percentage of renewables in code and asked if there has been consideration for the proposed stretch code. Tom suggested the marketplace is not ready for even a small requirement. Options to integrate discussed included density- and location-based requirements, granting credit for renewables vs. requirement, and use of “readiness” approach. Jim noted that NYStretch 2016 includes solar ready and EV vehicle infrastructure approach, which Massachusetts also includes. It was noted that California has explored options to meet 2019 renewable goal including use of Energy Design Rating (EDR) and impact on grid as metric. The potential role of community solar was discussed, including potential need for renewable definition to change to allow.

Action item

- Team to consider and suggest ideas to add to the mandatory and optional measures sections, including suggestions for NYS context and which would be attractive to builders, to allow Earth Advantage to proceed with modeling.