New Jersey Energy Code Collaborative

Stretch Code and Zero Energy Code Working Group Meeting Minutes

February 9, 2026, 2:00 PM

Attendees

- Cornelia Wu (NEEP)
- David Hattis (Rutgers/CUPR)
- Dragana Thibault (NEEP)
- Elizabeth Stanton (AEC)
- Emily DeHart (NJNG)
- Jamie Mize
- Jason Kliwinski (Rutgers/CUPR)
- Jeff Kolakowski (NJBA)
- Jennifer Senick (Rutgers/CUPR)
- Jennifer Souder (Rutgers/CUPR)
- Liu Liu (KEA Engineers)
- Mamie W Purnell (RPA)
- Maura Caroselli (NJ DRC)
- Rebecca Lynskey (TRC)
- Ryan Jerome (NJNG)
- Stacy Richardson (BPU)
- William Healy (TRC)

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1. Welcome and Introductions

Cornelia Wu (NEEP) opened the meeting with a competition law reminder. She then reviewed the purpose and guiding principles of the New Jersey Energy Code Collaborative (ECC), noting that the Collaborative exists to establish a timely, robust, stakeholder-guided process to research and develop a New Jersey Zero Energy Building Roadmap. She emphasized the group's commitment to:

- A transparent, collaborative, evidence-based process,
- Broad stakeholder engagement and respectful dialogue,
- Transparency and accountability (including sharing meeting summaries for review prior to publication),
- Ongoing education and learning opportunities, and
- Treating the Roadmap as a living document reflecting best practices, market developments, and stakeholder feedback.

2. NJ Rehab Subcode background

Jason Kliwinski (Rutgers/CUPR) framed the session as an effort to clarify where New Jersey currently is with stretch and net zero approaches and to support discussion about what a next-step code pathway could look like.

Jason provided baseline definitions:

- Base code: The minimum energy efficiency level set in state-adopted versions of national model codes (with possible state-specific amendments).
- Stretch codes: Codes requiring performance above the minimum efficiency levels of the base code.

- Net zero codes: Generally require demonstration that all site energy is provided from renewable sources (typically installed on-site and/or procured off-site). Jason noted some codes reference source energy, though many focus on site energy.

Jason summarized the historical trajectory of energy codes and that standard code adoption alone is unlikely to achieve the needed 2030/2050 climate goals, reinforcing the importance of stretch/net zero overlays.

Jason summarized key policy milestones shaping the context for stretch and net zero codes, including:

- The 2019 Energy Master Plan and its mechanisms related to energy storage targets, net zero carbon homes/programs, and development of EV-ready and demand-response-ready building codes.
- Subsequent updates via executive actions, including:
    - Executive Order 315 accelerating the clean energy goal to 100% clean energy by 2035 (from 2050).
    - Executive Order 316 targeting deployment of zero-carbon space heating/cooling for a large number of homes and commercial properties and electrification-readiness targets for LMI properties by 2030.
- NESCOM MOU (February 2024) commitments related to heat pump market share targets by 2040.
- The 2024 Energy Master Plan update, including long-term solar capacity targets and emphasis on grid modernization.
- Executive Order 2 (early 2026) described as the Garden State Energy Storage Program Acceleration effort supporting grid-scale storage and solar, as well as residential/ behind-the-meter programs.

Jason described common areas addressed by stretch codes, including:

- Energy efficiency (envelope, fenestration, air leakage, energy recovery, fan power, heat pumps, water heating),
- Electrification (heat/hot water), EV-ready provisions, and grid responsiveness,
- Renewables (on-site, off-site, or hybrid approaches).

He also summarized typical metrics approaches used by jurisdictions/programs, such as:

- Percent improvement over base code,
- Energy Use Intensity (EUI) approaches,
- HERS / ERI-based approaches,
- Prescriptive + performance backstops,
- Point-based systems,
- Third-party programs (e.g., Passive House, DOE Zero Energy Ready Homes).

Jason reviewed how New Jersey's current incentive structure functions as a form of above-code encouragement, describing tiers (e.g., bundled/streamlined/high performance pathways) and noting incentive levels rise as performance increases.

Jason explained that the performance levels currently incentivized through NJCEP pathways generally correspond to approximately 5% to 10% improvement above applicable code baselines, depending on the specific program pathway and standard used. He contrasted these levels with the IECC stretch appendix, which calls for substantially higher modeled performance improvements, including reductions of approximately 25% to 30% relative to the standard reference design, depending on building conditions. Jason noted that this difference in performance levels is important to understanding what a stretch code could represent in New Jersey and highlights a key policy question for the group: whether a future stretch code would align more closely with the current incentive levels or with the higher performance targets reflected in the IECC appendices.

Jason explained that in his experience Passive House projects can be substantially better than code, and he emphasized the relationship between energy efficiency and renewables: the lower the demand, the easier it becomes to offset remaining load with renewables.

Jason reviewed key elements of the IECC appendices:

- Appendix RG (Stretch)
    - Includes performance pathways such as improved envelope requirements and significant modeled reductions in annual energy costs compared to a standard reference design (with different requirements depending on fuel-burning appliances).
    - Contains an ERI-based compliance method with lower ERI targets than typical base-code thresholds.
    - Includes additional credits requirements. Jason described a large table of efficiency measures across systems from which projects select measures to meet required credits.
- Zero Energy appendices (Commercial and Residential)
    - Provide a framework for minimum renewable energy requirements, including prescriptive renewable tables and off-site renewable procurement guidance.
    - Jason emphasized that the net zero appendices explicitly recognize that not every building can meet net zero through on-site renewables alone; off-site renewable procurement is an expected pathway.
    - He noted updates from earlier versions such as terminology changes and treatment of RECs/off-site calculations.
    - On the residential side, he described an ERI compliance framework where a low ERI target applies when renewables are not included, and netting to zero requires adjusted on-site power production.

Jason briefly described other code/standard frameworks that could be considered, noting some are broader than energy alone:

- International Green Construction Code (IGCC) (ICC/ASHRAE/USGBC collaboration) covering energy, water, and sustainability.
- ASHRAE Standard 189 as a comprehensive high-performance green building standard and technical basis referenced by IGCC.
- LEED Zero certifications (including zero carbon and zero energy).
- Architecture 2030 Zero Code (code-format approach combining efficiency with renewable procurement to achieve net zero carbon performance).
  Jason noted he did not include Passive House as a separate option in that slide set because it is already incentivized and inherently drives high efficiency before renewables are layered on.

Jason concluded by opening discussion, asking for feedback on where the state should go next to support Energy Master Plan goals.

2. Discussion

William Healy (TRC) asked whether local jurisdictions adopt stretch codes in New Jersey, and if so how many and at what magnitude.

Jason Kliwinski (Rutgers/CUPR) responded that New Jersey's implementation is complicated because New Jersey is a statewide code state, unlike states where municipalities can adopt stricter local codes. He said there is not a clear answer yet on implementation and that the meeting intentionally focused first on defining what a stretch/zero code would look like before getting bogged down in adoption and rollout mechanics.

Cornelia Wu (NEEP) added that no jurisdictions in New Jersey have adopted a stretch code.

Jason Kliwinski (Rutgers/CUPR) added that he has seen higher-performance requirements appear legally through redevelopment zones / urban enterprise zones, where certain locations can require higher performance (e.g., LEED or ENERGY STAR) through zoning or redevelopment-related requirements, though he described these as few and far between.

Stacy Richardson (BPU) stated the meeting aimed to pick up from the prior discussion, where the group asked to better understand what incentives exist and the extent of the patchwork. She emphasized that greater unification of incentives could make compliance easier, and that the new construction program is a primary current incentive mechanism that can be compared against appendices and other code options.

Jeff Kolakowski (NJBA) thanked Jason and said there are multiple silos of related conversations happening. He emphasized that New Jersey already has above-code requirements in several contexts, particularly where projects receive incentives or funding through agencies and programs. He cited, as examples, above-code requirements tied to HMFA, EDA, and certain

DCA-related funding contexts, and he characterized redevelopment as a frequent setting where higher standards arise.

Jeff described the current environment as having multiple models and pathways:

- IECC appendices (soon in the 2024 code adoption context),
- NJ Clean Energy Program incentives,
- More requirements tied to agency funding that reference standards such as LEED or national green building standards.

He suggested part of the Collaborative's work should be figuring out how to roll toward one clearer model.

Jason Kliwinski (Rutgers/CUPR) responded that, by definition, incentives that require performance above base code could be considered stretch, but the key question is how far above base code New Jersey needs to go to meet policy goals, and that gap is what the group is trying to define.

Jeff Kolakowski (NJBA) raised concerns about increasing future electrical demand in residential buildings (including EV charging), making net zero more difficult. He asked what the overall goal should be, noting that net zero may not be achievable in all cases today, and questioned whether the pathway should assume all-electric or whether other energy sources, including gas, have a role.

Jason Kliwinski (Rutgers/CUPR) responded that net zero is achievable today as defined by many programs because the IECC appendices allow a combination of on-site generation and off-site procurement (e.g., green power/RECs/carbon instruments). He emphasized that buildings will still have demand; the issue is how demand is offset and accounted for. He noted that as grids become cleaner, some loads, including EV charging, may become effectively lower-carbon depending on supply.

Jeff Kolakowski (NJBA) clarified that some people interpret zero energy buildings as requiring more on-site generation and extreme demand reduction, and he gave an example of a high-end development case, citing a 24-unit subdivision in Princeton by Toll Brothers, to illustrate that such approaches may be feasible but not easily scalable across all housing due to costs and market constraints. He asked again whether gas has a future and how policy direction affects the technology trajectory.

Jason Kliwinski (Rutgers/CUPR) acknowledged these are complex questions and reiterated that many policy documents point toward electrification and readiness, while noting gas may remain for some time. He stressed that a core problem today is multiple agencies referencing different standards, creating confusion for industry. Jason suggested that adopting a statewide stretch or zero energy code could provide a single clear standard and methodology that agencies could reference consistently.

Jeff Kolakowski (NJBA) noted that some frameworks, like IGCC, ASHRAE 189, LEED, etc., incorporate water conservation and other green building elements, raising a scope question for the group: whether the Collaborative should stay energy-focused or consider broader frameworks that other agencies may prioritize.

Stacy Richardson (BPU) asked whether a stretch code could include multiple pathways, like the NJ Clean Energy Program does, under an umbrella approach.

Jason Kliwinski (Rutgers/CUPR) said yes, and noted that the NJ Clean Energy Program already created comparability across different standards by referencing performance improvements (e.g., percent better than code/ASHRAE). He said a stretch/zero code could use ERI, as the appendices do, or develop an equivalency matrix across standards. He added that IGCC and ASHRAE 189 already contain some equivalency pathways.

Ryan Jerome emphasized that cost must be part of the consideration, particularly if the strategy depends on incentives. He noted that construction costs have shifted significantly over the last 3–4 years, and he suggested the group needs realistic and timely cost accounting to inform incentive levels and ratepayer impacts. Ryan also said the group should strongly consider source energy as a metric, arguing that zero outcomes may not be captured adequately by focusing only on site energy.

Stacy Richardson (BPU) agreed, noting that understanding costs is necessary for setting appropriate incentive levels, often focused on the incremental cost gap, and that the discussion ultimately comes down to costs and benefits.

Jeff Kolakowski (NJBA) asked for clarity on the concept of netting out energy via green power purchases, questioning whether that approach is trickery if it doesn't make the housing stock more efficient, and asked how it advances energy efficiency goals.

Jason Kliwinski (Rutgers/CUPR) clarified that the IECC zero energy appendices require efficiency first (e.g., meeting a performance threshold such as ERI targets) and then address how renewables are added on-site, off-site, or a combination through defined accounting rules. Jeff acknowledged this clarification and noted he is becoming more familiar with the 2024 code appendices and point-based options and the added complexity of New Jersey spanning climate zones 4 and 5.

3. Next Steps and Closing

Stacy Richardson (BPU) summarized potential focus areas for the next meeting, reflecting what she heard from participants:

- Regroup around the goal of net zero energy buildings,
- Do additional analysis of other incentives/program requirements (including EDA and HMFA) and compare them to NJCEP and the IECC appendices,
- Explore equivalency pathways under a single umbrella approach,
- Explore accounting mechanisms, including the possible role of source energy,

- Review costs and benefits to inform appropriate incentive levels.

Jason Kliwinski (Rutgers/CUPR) agreed that Stacy's summary captured the discussion well.

Cornelia Wu (NEEP) reminded participants that the next New Construction subcommittee meeting is March 2, 2026 at 2 PM and that attendees should have received an invite.

Acronyms and Abbreviations

ANSI – American National Standards Institute
ASHRAE – American Society of Heating, Refrigerating and Air-Conditioning Engineers
BPU – Board of Public Utilities
DCA – New Jersey Department of Community Affairs
DOE – U.S. Department of Energy
ECC – Energy Code Collaborative
EDA – New Jersey Economic Development Authority
EMP – Energy Master Plan (New Jersey)
EO – Executive Order
ERI – Energy Rating Index
EV – Electric Vehicle
GHG – Greenhouse Gas
HMFA – New Jersey Housing and Mortgage Finance Agency
HERS – Home Energy Rating System
ICC – International Code Council
IECC – International Energy Conservation Code
IGCC – International Green Construction Code
LMI – Low- and Moderate-Income
MOU – Memorandum of Understanding
NESCOM – Northeast States for Coordinated Air Use Management
NJCEP – New Jersey Clean Energy Program
REC – Renewable Energy Credit
USGBC – U.S. Green Building Council
ZE – Zero Energy / Net Zero