



New Jersey Energy Code Collaborative

Meeting Minutes

July 17, 2026, 10:00 – 11:00 AM

Attendees

- Andy Topinka (Technical Group Services, Inc.)
- Cornelia Wu (NEEP)
- Dean Potter (K Hovnanian)
- Deane Evans (NJIT)
- Doug McCleery (MaGrann Associates)
- Dragana Thibault (NEEP)
- Eric DeGesero (EDGE Consulting)
- Gahl S. Spanier (AEA Clean Energy)
- Ian Rayfield (NJ DCA)
- Indrani Pal (NJ BPU)
- Jamie Mize (NJ NG)
- Jason Kliwinski (Rutgers CUPR)
- Jerome Ryan (NJ NG)
- Jennifer Souder (Rutgers CUPR)
- Justin Carpenter (KEE Alliance)
- Karl Hartkopf (NJ DEP)
- Kevin Nedza (NJ BPU)
- Kevin Rose (NEEA)
- Kiran Ghosh (Rutgers CUPR)
- Kyle G. Cruz (NJ HMFA)
- Liu Liu (KEA Engineers)
- Liz Stanton (AEC)
- Lou Rugulo
- Mamie W. Purnell (NJ Division of Rate Counsel)
- Matthew DeMarco (M&E Engineers, Inc.)
- Michael Kornitas (Rutgers)
- Michael Winka (Rutgers CUPR)
- Myrrh Caplan (Skanska)
- Ray Cantor (NJ BIA)
- Rebecca Lynskey (TRC)
- Rupa Deshmukh (NJ BPU)
- Ryan Richardson (NJ DOL)
- William Healy (TRC)
- Yousaf Shahid (Rutgers CUPR)

1. Introduction

Cornelia Wu (NEEP) welcomed participants to the July meeting of the New Jersey Energy Code Collaborative. Cornelia Wu reviewed the agenda, which included:

- Subcommittee report-outs
- Review of the New Jersey Uniform Construction Code adoption process
- Presentation on the 2027 IECC residential provisions
- Discussion of preliminary responses to the Energy Codes for New Construction Subcommittee poll

Cornelia provided an antitrust reminder and shared the purpose of the New Jersey Energy Code Collaborative is to establish a timely and robust stakeholder-guided process to research and develop a New Jersey Zero Energy Building Roadmap that provides options to build government and market capacities to effectively advance increasingly energy efficient building energy codes and improve administration, enforcement, and compliance, aligned with relevant state clean



energy policies, including Energy Master Plan goals and recommendations. She noted that the Zero Energy Building Roadmap is a living document that presents three concurrent pathways with explicit actions and timing for implementing zero energy building strategies, primarily through the adoption or amendment of building codes. The three pathways are building base code path, stretch code / zero energy code path, and existing building path. Cornelia stated that these pathways, adopted together, are designed to lead New Jersey to implement zero energy building codes for both new construction and existing buildings by 2030 or sooner.

2. Subcommittee Report-Outs

Cornelia Wu (NEEP) provided a brief report-out on subcommittee activities since the last full Collaborative meeting.

For the Energy Codes for New Construction Subcommittee, Cornelia noted that the Massachusetts Department of Energy Resources provided a second presentation on Massachusetts' thermal code approach and how that approach relates to peak load. She also stated that Rutgers presented preliminary cost research on zero energy ready and zero energy buildings. The discussion focused on grid impacts, affordability, resilience, and applicability to New Jersey.

For the Existing Buildings and Retrofits Subcommittee, Cornelia stated that the subcommittee reviewed Rutgers' experience using New Jersey incentive, grant, and loan programs for energy efficiency and decarbonization projects. Cornelia noted that the discussion focused on procurement challenges, funding gaps, combining funding sources, and opportunities to support deeper upgrades in existing buildings.

For the Code Compliance and Workforce Subcommittee, Cornelia noted that no meeting was held this quarter. NEEP and Rutgers are working on an inventory of New Jersey training and educational resources and materials for new code enforcement officials. Cornelia noted that this work is being coordinated with the BILT initiative and that the eighth BILT meeting is anticipated for December.

3. New Jersey Energy Code Adoption Process and Next Code Cycle

Cornelia Wu (NEEP) provided an update on the New Jersey energy code adoption process for the 2024 IECC. Cornelia stated that the 2024 IECC was published by ICC in August 2024. Later in 2024, the New Jersey Department of Community Affairs began its technical review through the Code Advisory Board. Through 2025, the Code Advisory Board approved recommended amendments, and on October 20, 2025, the proposed rule was published.

Cornelia stated that the final rule has been under review since then. Remaining steps include Governor's Office review, publication of the final adoption, and determination of the effective date.



Cornelia asked whether anyone from the New Jersey Department of Community Affairs could speak to the status of the adoption process.

Ian Rayfield (NJ DCA) stated that the process is currently moving and that DCA is anticipating the end of summer or beginning of fall for adoption and publication. Ian Rayfield noted that the rule is still under review.

Cornelia then reviewed the anticipated next energy code cycle. Cornelia stated that DCA will review newer editions of the model energy code as they are released. The Uniform Construction Code Act allows the adoption of revised model codes no more than once every three years, unless necessary for health or safety. Cornelia stated that New Jersey state law does not establish a deadline for beginning review after a new IECC is published.

Cornelia stated that, based on prior code adoption cycles and the anticipated publication of the 2027 IECC, DCA technical review could occur in 2027 or early 2028. Development of New Jersey amendments through the Code Advisory Board process would begin after DCA technical review. Cornelia stated that a proposed rule could potentially be published by late 2028, with possible final adoption after public comment and rulemaking in 2029. Cornelia emphasized that the actual timing would be determined by DCA.

Ian Rayfield stated that, because the process is still preliminary, everything is up in the air, but that the general timing described is what DCA is anticipating.

4. 2027 IECC Residential Provisions

Kevin Rose (NEEA) presented a preview of the 2027 IECC residential provisions. Kevin Rose introduced himself as staff with the Northwest Energy Efficiency Alliance and noted that he previously worked at NEEP and participated in other state code collaboratives.

Kevin began with key takeaways. The 2027 IECC is nearing the end of its development. If the code continues on its current path, it is expected to provide approximately a 5 percent improvement in efficiency for new homes compared to the 2024 IECC. Kevin emphasized that the 5 percent estimate is for a typical average new home and that there will be a range of outcomes depending on foundation type, geographic location, and compliance path choice. Beyond energy efficiency, the 2027 IECC does not appear to include significant changes related to decarbonization, electrification, or demand response compared to the 2024 IECC.

Kevin explained that there were important changes in the administrative chapters, including updates to the climate zone maps. In New Jersey, three counties in northern New Jersey are shifting from Climate Zone 5 to Climate Zone 4. The thermal envelope requirements are tied to climate zone, so those counties would have weaker thermal envelope requirements for windows, floors, and foundation walls compared to the 2024 IECC. Kevin described this as a



partial step backward in efficiency for those counties if the 2027 IECC is adopted without modification.

Kevin stated that the three primary compliance paths for residential new homes remain prescriptive, performance, and Energy Rating Index. Each of these paths is built upon and draws from the general requirements in earlier chapters of the code.

Kevin then reviewed five key changes in the 2027 IECC.

First, he discussed duct location requirements for homes with basements or conditioned crawl spaces. The 2027 IECC is expected to require or heavily incentivize that HVAC ducts be located inside conditioned space for homes with these foundation types. The prescriptive and Energy Rating Index paths, in particular, require ducts and space conditioning equipment to be in conditioned space, with limited exceptions. This may be a significant change for some projects, although many homes with conditioned basements or crawl spaces already have these systems in conditioned space.

Second, Kevin discussed changes to the prescriptive path. The number of required energy credits is expected to increase by five. For a typical home, this would increase the requirement from 10 credits in the 2024 IECC to 15 credits in the 2027 IECC. New measure options were also added, mostly traditional energy efficiency measures, with some electrification and demand response measures included as well.

Third, he discussed the performance path. Kevin stated that the 2024 IECC requires the proposed modeled design to use no more than 80 or 85 percent of the energy consumption of the corresponding baseline home, depending on whether the home uses fossil fuel. He explained that the 2027 IECC changes the compliance threshold so that it is based on climate zone rather than heating fuel choice, with thresholds of 75 and 80 percent. The impact varies depending on the situation. For example, a heat pump home in Climate Zone 4 would move from an 85 percent threshold under the 2024 IECC to a 75 percent threshold under the 2027 IECC, while a gas-heated home in Climate Zone 5 would remain at 80 percent.

Fourth, Kevin stated that Energy Rating Index targets are expected to improve by one point. For New Jersey's Climate Zones 4 and 5, the targets without renewables would move from 53 or 54 to 52 or 53, respectively.

Fifth, he stated that window U-factor requirements are expected to improve slightly in Climate Zone 5.

Kevin Rose then discussed potential market impacts. Kevin Rose stated that the duct location provision may cause some redesigns to move ducts and space conditioning equipment into conditioned space. Kevin Rose also noted that it could lead to market shifts toward other



foundation types, such as slab-on-grade, or increased use of the performance path, which he described as the most permissive path for this duct location provision.

Kevin stated that the increase in required energy credits could also affect market behavior. He explained that under the 2024 IECC, many builders in New Jersey could meet the required credits by selecting straightforward equipment efficiency credits for space heating and water heating. Under the 2027 IECC, some projects, especially gas-heated homes, may no longer be able to reach the required 15 credits using only higher-efficiency space heating and water heating options. This may lead to more interest in envelope measures, other measure categories, and whole-home energy savings options.

Kevin emphasized that his estimate of approximately 5 percent average energy savings is unofficial and based on his own analysis. There is a wide range of outcomes across compliance paths, and that higher-savings outcomes may be unlikely in the market because they could be cost prohibitive or lead projects to select other compliance options.

Kevin then reviewed changes related to existing buildings. He stated that the main changes are for additions. For a substantial addition to a home that is not relatively new, an energy audit of the existing home would be required. The 2027 IECC builds on the 2024 IECC requirement for five energy credits for certain additions by adding more flexibility. Kevin explained that projects could use a pick list of seven options for improving efficiency within the existing home instead of using the energy credits menu.

Kevin also noted that, where an entire thermal envelope is being altered, such as in a full gut rehabilitation, the 2027 IECC includes a blower door requirement. The energy features certificate, which typically goes on the electrical panel and is currently required for new construction, would also be required for some significant existing building cases.

Kevin stated that there is one notable appendix change. In Appendix RK, the electric-ready appendix, space heating was added after being unintentionally left out previously. This makes the appendix more complete, but there were not many other changes to the appendices.

Kevin summarized what the 2027 IECC may mean for New Jersey. The 2027 IECC appears to provide a modest energy efficiency improvement for a typical home, but the amount of savings will vary based on compliance path, foundation type, and location in the state. He stated that, if New Jersey's goal is to consistently improve the energy code, it may be practical to consider amendments to avoid cases of low or no savings.

Kevin also stated that, if New Jersey is seeking to advance goals beyond traditional energy efficiency, such as decarbonization, electrification, or demand response, the 2027 IECC does not appear to provide much new material on those topics. New Jersey would likely need to adopt appendices or use another policy mechanism to pursue those goals.



Kevin also discussed the three northern New Jersey counties shifting from Climate Zone 5 to Climate Zone 4. New Jersey could either train the market and code officials on the new climate zone requirements or amend the code to keep those counties in their current climate zone in order to maintain stronger thermal envelope requirements.

Cornelia Wu thanked Kevin Rose and clarified one point regarding existing buildings. Cornelia stated that, in New Jersey, the Rehab Code governs existing buildings, so the existing building provisions discussed from the IECC would not apply in the same way in New Jersey.

Eric DeGesero (EDGE Consulting) asked whether Cornelia could clarify the triggers for when the New Jersey Rehab Code applies, noting that certain metrics need to be met for the Rehab Code to apply.

Cornelia Wu responded that she did not have the triggers in front of her but could send an email to the group outlining them.

Follow up email: The applicable requirements depend on how the work is classified. For renovation, alteration, and reconstruction projects, the Rehabilitation Subcode includes four common energy-related triggers:

1. Exposing the building thermal envelope: When work creates or exposes roof decking, sheathing, or the framing of a wall, floor, ceiling, or roof assembly that encloses conditioned space, accessible voids in the insulation must be filled to the applicable energy-code R-values. Where the full R-value cannot be installed in a residential assembly because of space constraints, the available cavity must be filled with insulation.
2. Installing or replacing fenestration: Newly installed or replaced windows, skylights, and doors must meet the applicable U-factor requirements, subject to certain residential exceptions.
3. Installing or replacing ducts: Newly installed or replaced ducts must meet the applicable duct-insulation R-values.
4. Installing or fully replacing a lighting system: A newly installed building lighting system, or the total replacement of an existing system, must meet the applicable residential or commercial energy-code requirements. For commercial work limited to a room, space, or tenancy, compliance is limited to that area.

These provisions are found in N.J.A.C. 5:23-6.5(e)11–14 for renovations, N.J.A.C. 5:23-6.6(e)18–21 for alterations, and N.J.A.C. 5:23-6.7(e)15–18 for reconstruction. In addition to the four triggers above, N.J.A.C. 5:23-6.8(l) makes certain specified residential and commercial energy-efficiency requirements applicable to the materials and installation methods used in



renovation, alteration, and reconstruction work. The particular requirements that apply will depend on the type, scope, and classification of the project.

5. 2027 IECC Residential Provisions

Cornelia Wu (NEEP) reviewed preliminary results from the Energy Codes for New Construction Subcommittee poll. The subcommittee has approximately 50 members, with about 25 to 30 active participants in meetings. 14 responses had been received to date and participants were encouraged to submit responses by July 24. The poll includes Likert-scale questions and open-ended questions and that the results will be used to guide future discussions.

Cornelia reviewed preliminary responses to the question asking which pathway or pathways the Collaborative should continue exploring. Five respondents selected legislative changes to allow a statewide stretch code that is voluntarily adopted at the municipal level. Eight respondents selected increasing the stringency of the statewide base energy code by incorporating strengthening amendments in a future code cycle to include stretch or net zero energy requirements. Five respondents selected adopting or incorporating selected IECC appendices into the base code. Nine respondents selected aligning new construction incentives with IECC stretch or zero energy appendices. Nine respondents selected adding or expanding incentives for electrification-ready construction. Six respondents selected adding or expanding incentives for electric vehicle-ready infrastructure. Three respondents selected developing a more standard above-code framework for redevelopment zones and municipal programs. Three respondents selected developing guidance or tools for municipalities through Sustainable Jersey or a similar platform. Three respondents selected “other.”

Cornelia then reviewed responses to the question asking which options should be the highest priority for near-term discussion. Stretch code legislation received zero responses, net zero code legislation received one response, base code amendments or future code adoption strategy received five responses, incentive alignment with IECC appendices received three responses, electrification-ready and electric vehicle-ready incentives received three responses, redevelopment zone or municipal above-code framework received zero responses, and “other” received two responses.

Cornelia reviewed responses to the question asking whether New Jersey should consider incentives specifically for stretch code, zero energy code, electrification-ready construction, electric vehicle-ready infrastructure, or other readiness measures. Five respondents selected electrification-ready construction, three selected electric vehicle-ready infrastructure, five selected renewable-ready construction, three selected stretch code-level performance, three selected net zero energy-level performance, and eight selected all of the above. There were no responses for “no” or “unsure,” and three responses for “other.”



Cornelia reviewed responses to the question asking about the biggest concerns with any above-code pathway. The top concern was cost and affordability, with nine responses. Builder and developer readiness received six responses. Code official capacity or enforcement received five responses. Market readiness received two responses. Grid capacity or utility coordination received six responses. Legal authority received four responses. Inconsistent requirements across municipalities received six responses. Administrative complexity received three responses. “Other” received four responses.

Cornelia also summarized open-ended responses. Some respondents requested further discussion of IECC appendices, stretch code concepts, and envelope measures. Interest in resiliency, flood mitigation, and climate-adaptive programs. Several comments focused on infrastructure readiness, including electric service sizing, transformer needs, large electric loads, and thermal energy networks. Some respondents suggested building on the existing New Jersey Clean Energy Program new construction program rather than creating competing requirements. Respondents also suggested that program design should consider recent Governor’s Office directives and broader affordability priorities.

Cornelia stated that responses to a final open-ended question emphasized affordability, cost transparency, and ratepayer impacts. Some respondents recommended starting with incentives and demonstration projects before moving toward mandates. Some comments raised concerns that all-electric pathways for large-load new construction projects could potentially cause transmission buildout and impact ratepayers. Respondents said incentives may be a more practical way to gain builder and developer buy-in than increasing base code requirements.

Cornelia reminded participants that the poll was still in progress and encouraged additional responses.

6. Discussion

Dean Potter (K Hovnanian) asked whether it would be appropriate to comment on one of the poll themes related to electrical sizing. Cornelia Wu invited Dean Potter to share his comments.

Dean Potter stated that Leading Builders of America has been working with the U.S. Department of Energy because builders are seeing, across the country, that the National Electrical Code does not recognize the efficiencies that have been built into buildings when calculating loads. Dean stated that this can lead to increased transformer requirements, depending on the location and project type. He explained that all-electric homes with energy recovery ventilation, solar-ready provisions, electric vehicle charging, and other features can have calculated loads that push electrical panels above 200 amps under current National Electrical Code design requirements. DOE and Lawrence Berkeley National Laboratory are working on more accurate documentation of real loads so that electrical systems are not overdesigned. Dean Potter stated that overdesigning electrical systems can reduce density and



affect affordability, and can also take up capacity with unnecessary design assumptions. DOE is looking for data showing what housing built to the 2021 or 2024 codes is actually using, rather than only what the homes are designed to use. This data could help support changes to National Electrical Code requirements.

Doug McCleery (MaGrann Associates) stated that he supports that work because, in his view, the National Electrical Code is overly conservative and requires oversized infrastructure.

Jason Kliwinski (Rutgers CUPR) shared an example from a recent New Jersey project involving a new approximately 3,000-square-foot home connected to the grid with solar, batteries, and charging stations for two electric vehicles. Jason stated that, when the engineer performed the calculations under the National Electrical Code, the project appeared to need 400-amp service. The local utility said the project could not install 400-amp service because the lines were not sized for it. Jason explained that, when the project team reviewed the loads, it was clear that the loads were non-simultaneous and that the likelihood of needing 400-amp service at any given time was negligible. The project proceeded with 200-amp service and advised the homeowner that turning everything on at 100 percent could cause issues or trip breakers. He stated that this issue should be corrected because it is occurring in real time on projects.

Dean Potter stated that Jason's example captured the issue and noted that the impact becomes much larger when applied to a 200-unit condominium project or a 100-home subdivision. This can lead to more transformers and add to affordability challenges.

7. Closing

Cornelia Wu (NEEP) thanked participants for joining and reminded them to complete the Energy Codes for New Construction Subcommittee poll. The poll would remain open until July 24 and that results would be analyzed and shared after it closes. The facilitation team would then look at times for future subcommittee meetings and that survey results would help guide future discussions.

Acronyms and Abbreviations

BILT – Building Industry Leadership Team
CUPR – Center for Urban Policy Research
DCA – New Jersey Department of Community Affairs
DEP – New Jersey Department of Environmental Protection
DOE – U.S. Department of Energy
ECC – Energy Code Collaborative
ERI – Energy Rating Index
EV – Electric Vehicle
HVAC – Heating, Ventilation, and Air Conditioning
ICC – International Code Council



IECC – International Energy Conservation Code
KEA – KEA Engineers
K Hovnanian – K. Hovnanian Homes
LBNL – Lawrence Berkeley National Laboratory
MaGrann – MaGrann Associates
NEC – National Electrical Code
NEEA – Northwest Energy Efficiency Alliance
NEEP – Northeast Energy Efficiency Partnerships
NJ – New Jersey
NJ BA – New Jersey Builders Association
NJ BIA – New Jersey Business & Industry Association
NJ BPU – New Jersey Board of Public Utilities
NJ CEP – New Jersey Clean Energy Program
NJ DCA – New Jersey Department of Community Affairs
NJ DEP – New Jersey Department of Environmental Protection
NJ DOL – New Jersey Department of Labor
NJ HMFA – New Jersey Housing and Mortgage Finance Agency
NJ NG – New Jersey Natural Gas
NJIT – New Jersey Institute of Technology
PSE&G – Public Service Electric & Gas
RPA – New Jersey Redevelopment Authority / RPA, as listed in the attendance report
TRC – TRC Companies, Inc.
UCC – Uniform Construction Code