Attn:

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RE: Virtual Hearing Testimony – Docket #2025-R-CCE-0008 - State Energy Conservation Code

My name is Kevin Brozyna, and I work with K Hovnanian Homes in Smyrna, Delaware. Thank you to DNREC for the collaboration to date and the opportunity to speak this evening.

Today, I am recommending that Delaware adopt the 2024 IECC building code as written—without the Zero Energy Capable supplemental requirements. This approach meaningfully advances energy efficiency in new construction, keeps Delaware at the forefront nationally, and balances progress with responsibility by not risking unintended harm to homeowners, builders, and our communities from premature, aggressive zero energy mandates.

By way of background, I am a homebuilder and have personally built hundreds of Zero Energy Ready homes right here in Delaware over the past eight years. Am also a repeat winner of national housing innovation awards for construction of Zero Energy Ready Homes. As an experienced builder that has dedicated my career to advancing building performance, my testimony is not conjecture. I understand the real-world requirements for successful implementation of advanced building performance—from training and trade coordination, to quality assurance, cost control, and even educating our homeowners after the sale.

I am deeply committed to advancing energy efficiency and sustainable housing. However, as currently drafted, the rapid adoption of Zero Energy

Capable mandates without the necessary infrastructure in place, creates fundamental risks—especially concerning the health of residents.

Two areas of the most serious risks are HVAC failures and poor moisture management. Highly efficient homes are susceptible to failures in these areas when unskilled parties try to implement advanced practices without proper training. Both of these can lead to significant indoor air quality and building durability problems. Advocates for stronger codes must prioritize occupant health and building durability, not just unsubstantiated energy targets.

If true market demand exists for high-performance homes, allow the market to dictate that and consumers to seek out and choose from qualified builders who are knowledgeable on how to safely deliver these advanced strategies. The state is mandating a significant code shift before the list of stakeholders is truly ready — We have to understand the extent of the stakeholders impacted including building code plan reviewers and inspectors, advanced equipment suppliers, trained trade partners, energy efficient appraisers and lenders, and home buyers. IF we don't properly build the process with all these player in mind would be like building the walls and roof of a house without first building the foundation. It may look good, but there is no structure to support or sustain it.

The cost analyses and documentation posted for this public hearing, and testimony this evening by some of the energy advocates does not paint the whole picture of both the hard and soft costs of this regulation. The PNNL cost analysis documents focus on the 2021 and 2024 code, not the Zero Energy Capable requirements, which are the primary driver of the significant cost impact. Typical efficiency improvements from each code cycle result in an improvement of 6-10%, the change from 2018 to Zero Energy Capable is nearly 30%.

The process for establishing Delaware's Zero Energy Capable target has not been transparent. The ERI target of 42 from Appendix RC represents a nearly 30% efficiency jump from current code, which is far more aggressive than

national Zero Energy Ready standards with proven track records. In practice, DOE Zero Energy Ready Homes in climate zone 4 typically achieve scores in the upper to mid-40s, not the low 40s. This target appears arbitrary and lacks the practical and strategic planning necessary for responsible implementation.

While I commend the States' and departments goals of improving the efficiency of the built environment, I urge both the efficiency advocacy groups and governing parties to understand the balance between advancing efficiency and imposing overly burdensome requirements and creating risks for the new home industry and constituents in the state. DNREC staff, please support the implementation the 2024 IECC as the new code and work with State legislature to postpone the implementation of the Zero Energy Capable requirements while the industry stakeholders collaborate to carefully evaluate and plan for future implementation of the Zero Energy goals to ensure the entire framework is sufficiently in place to do so.

Thank you for the opportunity to testify this evening.

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Additional comments and questions

- What was the intent behind providing Passive House as an alternative method of compliance? Is it DNREC's view that Passive House (Phius or PHI) is comparable in terms of energy performance to an ERI 42 or the DOE ZERH program?
- What is DNREC's view on the avg ERI performance of a Phius certified house and a DOE ZERH certified house in climate zone 4?
- Within the proposed code language, *section 407.3.e, For Projects with Phius design certification, provide final Energy Star and Zero Engery Ready Homes certificates*…. Please explain why these are required and how they are related to Phius? There are very different requirements between Phius and these programs. If you haven't planned for ZERH from the beginning, building to Phius does not automatically qualify you for these certifications at final.
- Using the 2018 IECC as a baseline and assuming a single family detached 2000 sqft slab-on-grade home (representative of the majority of the new homes being built in DE), what is DNREC's understanding and expectation of the average additional cost to construction homes to achieve each of these standards:
    - unamended 2024 IECC
    - unamended 2024 IECC with Zero Energy Capable Amendments (as proposed)
    - Phius certification
    - DOE ZERH certification
- What are DNREC's metrics for cost-effectiveness when evaluating compliance and alternative compliance pathways for the code?

- Neither of the exhibits related to cost analysis that were listed by DNREC for the virtual meeting (National Cost-Effectiveness of the Residential Provisions of the 2021 IECC PNNL Report and National Cost-Effectiveness of the Residential Provisions of the 2024 IECC PNNL Report), actually cover cost effectiveness of transitioning from the 2018 IECC to the 2024 IECC ***with Zero Energy Capable amendments*** (as proposed). If that PNNL study is going to be referenced, then it supports the recommendation to stick with the 2024 IECC as the baseline, without the Zero Energy Capable amendments. However, providing that analysis as a representation of cost effectiveness analysis to implement the full 2024 IECC ***with Zero Energy Capable amendments*** is very misleading for the general public.
- Please share a copy of any other study that DNREC used when evaluating the cost effectiveness of transitioning from the 2018 IECC to the 2024 IECC ***with Zero Energy Capable amendments (as proposed)***. And please confirm that this analysis also considers both the soft costs the builder will experience for third-party energy-rating and engineering support, and the expected cost to the homebuyer; not simply the material cost to the builder.
- Can DNREC share a copy of the analysis from a national lab or other source that was used to determine the 30-credit threshold from table 408 plus the 2024 IECC prescriptive measures provides an equivalency of an ERI 42?
- Since the typical revision period for updating a full portfolio of plans between code cycles can take 6mo-1yr (when a builder has dozens of plans in their portfolio), it is expected that transitioning from the 2018 IECC to the full 2024 IECC with Zero Energy Capable amendments will take no less than 1-yr, given the significant changes that will be needed to the building enclosure and MEP systems.
- Can DNREC please provide confirmation that each County Building Department in the State has confirmed their staff will be fully trained

and capable of implementing both building plan reviews and field inspections to the 2024 IECC with Zero Energy Capable amendments (as proposed) by the currently stated date of effectiveness?

- Please outline the dates that each County Building Department has indicated it will be adopting and implementing the code as proposed.
- Please provide an overview of the interactions that DNREC has had with the green / energy efficient mortgage lenders and appraisers that will be necessary to achieve the cost effectiveness for buyers. Please also include DNREC's view if the current state of the lending and appraisal industry is adequately in place to support the universal implementation of the code as proposed.