

**Comments Received During the Stakeholder Feedback Period for
National Version 3.3 of the ENERGY STAR Single Family New Homes and
National Version 1.3 of the ENERGY STAR Multifamily New Construction Program**



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

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Comments Received

Organization Name: [Aeroseal LLC](#)

Respondent Last Name: [MacPherson](#)

Respondent First Name: [Ross](#)

Comments:

General

[\[No Comment\]](#)

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For [SFNH](#), initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For [MFNC](#), for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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[The threshold of 3.5 ACH50 is achievable at scale.](#)

- 2) Do you have additional general feedback on this topic?

[The stated goal of ENERGY STAR v3.3 is to achieve 10% greater efficiency than the 2024 International Energy Conservation Code \(IECC\). However, the proposed alternative compliance threshold for dwellings with \$\leq 1,500\$ ft² of conditioned floor area, townhouses, and attached dwelling units—set at \$\leq 0.30\$ CFM50 per ft² of dwelling unit enclosure area—permits 11% more air leakage than the 2024 IECC threshold of \$\leq 0.27\$ CFM50 per ft² for the same building types. This 21% discrepancy between the v3.3 goal and the allowable air leakage will place additional pressure on other](#)



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measures to meet program compliance.

We recommend the alternative compliance leakage rate be capped at 0.24 CFM50 per ft².



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Comments Received

Organization Name: [Arcxis Builder Services](#)

Respondent Last Name: [Cochran](#)

Respondent First Name: [Thomas](#)

Comments:

General

[\[No Comment\]](#)

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[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[We understand that this is necessary as Energy Star for Homes is required to be 10%, or more, efficient than the latest model code. However, the ERI targets are nearing a position where it becomes extremely costly and/or difficult to achieve the required scores for program compliance from a performance and cost-effectiveness standpoint. We accept the estimated targets but urge a review of future versions that look at other areas of efficiency and performance that may have an overall positive impact on the environment like decarbonization, water efficiency, material selection, etc.](#)

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[This backstop would be difficult to achieve in some of the U.S. major housing markets either through lack of current testing and enforcement OR due to construction practices such as slab-on-grade foundations. We feel that the recent update to 4ACH50 is an acceptable target in all markets, or at the very least with consideration to foundation type and building practices. We have recently pulled some data for a review of recent confirmed ratings and find that there](#)



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56% of markets where the recent average ACH is higher than 3.5ACH50. 25% of markets currently average 4ACH50 or higher. Please consider construction/foundation type targets.

- 2) Do you have additional general feedback on this topic?

[No Comment]



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Comments Received

Organization Name: [Building Efficiency Resources, LLC](#)

Respondent Last Name: [Pasillas](#)

Respondent First Name: [Gabriel](#)

Comments:

General

[\[No Comment\]](#)

Definition of more stringent performance targets in new versions

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[SFNH Comment](#) : Overall, we are in agreement with the proposed ERI Target of 45-50 for most homes as it scales appropriately with previous version updates.

[MFNC Comments](#) : The only issue with the target requirements would be 45L Tax Credit. It will likely be too challenging to reach the v1.3 requirements for projects completed in 2028, and projects acquired in 2027 under v1.2 are going to be difficult as well already.

- 2) Do you have additional general feedback on this topic?

[No comment.](#)

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[Overall, BER agrees with the thermal backstop changes based on the differences between IECC 2021 and IECC 2024. However, we propose adding an alternative for the potential modified envelope backstop stringency. Tradeoffs such as having ducts in conditioned space, decreased air leakage, adding balanced ventilation with heat recovery; alternatives that would make participation in the program more accessible to more builders and lead to growth for the program.](#)

- 2) Do you have additional general feedback on this topic?

[No comment.](#)

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[Based on IECC 2024 adjusting the ACH leakage limit to be 4.0 for CZ 0-2 and 3.0 for CZ 3-5, the need to also further](#)



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adjust the Energy Star v3.3 infiltration backstop limit to 3.5 ACH seems unnecessary from a savings and tradeoff standpoint. We suggest that a more reasonable path forward to achieve the desired savings percentage would be to maintain the infiltration backstop of 4.0 across the Energy Star SFNH versions (3.1/.2/.3) and focus more on the adjustment of the ERI Target and variables that have more of an impact on energy/cost savings than the infiltration metric does currently. Making the infiltration backstop too strict would limit that variable's value in modeling tradeoffs and likely lead to less homes being eligible to participate in the program overall.

2) Do you have additional general feedback on this topic?

No comment.



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Organization Name: [Crown Ventures, LLC](#)

Respondent Last Name: [Crown](#)

Respondent First Name: [John](#)

Comments:

General

After completing all my energystar requirements for a new home including NetZero requirements it was a shock to see that my HVAC contractor (who is certified in aeraseal no doubt) did not qualify for energy star, thus I did not qualify as a home builder. This needs to change. There are no energy star HVAC contractors within 50 miles of my location. The contractor is NATE certified and will not sign up for energy star due to not having an incentive to pay the fee. This needs to change to allow small shops to be waived if there is 1) either no energy star contractor within 30 miles, or 2) Be incentivized to waive the fee so they can be a part of the program anyway for interested builders to join the program. The 3rd party energy-star rater (which I hired), was not allowed to qualify my HVAC installation and should be allowed to, just like he is qualified to inspect the insulation at the same time as the insulation inspection visit. My blower door score was 1.0 which was the best in our county, yet I still did not qualify due to my local HVAC contractor not signed up and not willing to pay the fee as a small, but NATE qualified contractor.

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[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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[\[No Comment\]](#)



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2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



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Organization Name: [Energy Efficient Codes Coalition](#)

Respondent Last Name: [Schmidt](#)

Respondent First Name: [Amy](#)

Comments:

General

We support and encourage EPA to continually update the Energy Star for Homes Program to advance single and multifamily requirements in order to advance the energy efficiency of homes in order to set them apart as worthy of recognition and incentive program compliance. We are opposed to weakening or backsliding of the energy efficiency to any new version of the program or portion of the program without technical justification.

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[This appears to be a moderate and appropriate improvement.](#)

- 2) Do you have additional general feedback on this topic?

[If the current DOE/PNNL analysis for the 2024 determination changes or is not made official it could affect the need to update to v3.3 or affect proposed changes within v3.3.](#)

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[While the 2024 IECC has been analyzed and a preliminary net positive determination is likely, not all changes in the 2024 IECC result in energy savings. Some changes unfortunately result in negative energy savings. This is true for some of the prescriptive R-values/U-factors in the code. We are opposed to weakening the the building thermal envelope. The building envelope plays a crucial role in lowering utility bills, moisture management, thermal passive survivability, comfort, reducing HVAC loads, reducing carbon emissions, and easing the transition to clean energy. Building envelope insulation, has a longer service life than HVAC, lighting, water heating, etc. If the Energy Star v3.3 adopts the 2024 envelope values as the means of establishing the referenced building for ERI modeling it will have weaker envelope requirements than v3.2. This would result in homes with weaker building thermal envelopes. And a lost opportunity to fully realize the benefits listed above for homeowners across the country. This move would fundamentally violate the reputation of the program and result in unnecessary and unjustified higher energy consumption for all homes built to these weakened provisions. The 2021 IECC with it's stronger building envelope received a positive determination. The 2021 envelope requirements were vetted through the rigorous national code development process, they promote good building science practices and are readily available and have been used by many high performance builders for years. The Total UA or \(now Thermal Conductance/TC\) method allows for adequate flexibility while maintaining a robust envelope. We ask that EPA even if moving to the 2024 IECC for other improvements, either \(1\) stick with the stronger and better 2021 IECC building envelope R-values/U-factors as the basis for Total UA \(TC\) requirements or \(2\) base the backstop on the prescriptive 2024 R-values/U-factors themselves and do not allow Total UA/TC trade-offs among the various envelope](#)



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compenents.

- 2) Do you have additional general feedback on this topic?

This comment is consistent with intent of the program “The program created a national benchmark for superior energy efficiency in homebuilding, with a strong foundation of building science principles and third-party inspections by home energy raters”. It was not created to pacify compliants or opposition to change. The program was created to change the way we build. To build better. The IECC provided minimum requirements for construction. Energy Star should provide superior requirements that “exceeding minimum energy code requirements by at least 10%”. Reference: [EnergyStar.gov/partner/residential_new/about](https://www.energystar.gov/partner/residential_new/about)

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[We support this change and acknowledge that the data supports moving to an improved backstop for air infiltration/exfiltration \(leakage\).](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



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Comments Received

Organization Name: [ES Green & Co, LLC](#)

Respondent Last Name: [Conn](#)

Respondent First Name: [Jane](#)

Comments:

General

[\[No Comment\]](#)

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[This proposed jump comes too quickly after implementation of Nat 3.2](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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[Going from 2009 to 2021 to 2024 in two years is too quick](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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[Again, too much too soon](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



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Comments Received

Organization Name: **ES Green & Co, LLC**

Respondent Last Name: **Christesen**

Respondent First Name: **Julie**

Comments:

General

[No Comment]

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[No Comment]

- 2) Do you have additional general feedback on this topic?

When revising the reference homes, please make sure all approved modeling programs are working off of the same home with the same inputs. Currently the modeling programs are not on the same page, with Ekotrope giving a much different ERI target and HERS index than Energy Gauge. Consistency is important, and it's currently lacking across the programs.

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[No Comment]



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Comments Received

Organization Name: [ES Green & Company, LLC](#)

Respondent Last Name: [Christesen](#)

Respondent First Name: [Julie](#)

Comments:

General

I oppose implementing a firm backstop, especially one that doesn't account for climate zone, or isn't tiered. I think a better choice would be to reward a lower ACH, instead of punish a higher one.

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Yes. I believe consistently hitting a firm backstop of 3.5 is not achievable without using spray foam insulation, and that causes many issues. For hot humid climate zones, that puts so much pressure on having a dehumidifier, which hasn't typically been required. I disagree with a firm backstop no matter what, because in general (up until these new proposals) the ACH number has not really affected the HERS index or the ERI target. It has minimal impact. Now, it will be one of the MOST important pieces of information.

- 2) Do you have additional general feedback on this topic?

I oppose implementing a firm backstop, especially one that doesn't account for climate zone, or isn't tiered. At the



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moment, a difference in a 5 ACH and 3.5 ACH is so nominal that it generally does not change a HERS index even .5 of a point, and with this proposed change Energy Star is proposing to make the infiltration backstop the MOST important factor, because if you don't hit it, you don't qualify for Energy Star. This feels sudden and punitive. Additionally, so much more work needs to be done on advanced ventilation equipment before Energy Star starts basically requiring it in every home. The guidelines are not clear, there aren't many great options for equipment, and it's confusing. Finally, this low infiltration backstop basically takes away the choices of builders to use insulation that isn't spray foam and fully encapsulate their homes. Energy Star works because there are choices in how builders and raters meet their goals – this essentially takes away the choice for any other type of insulation that isn't spray foam. There are unstudied health impacts that may come from using only this type of insulation – is this really a requirement Energy Star wants to (inadvertently) make?

A much better way to go about this would be to incentivize a lower ACH infiltration volume. For example, it could have a much larger impact on the HERS index/ERI target than it currently does, and builders could make their choices on how to hit that ERI. If, in version 3.3, an ACH of 3.5 provided significant benefit over an ACH of 4.5 or 5, Energy Star could start to get an idea of how reasonable of a request this is and how often it's being taken advantage of, instead of precluding houses that are built well, to Energy Star standards, that get an ACH of 3.6 instead of 3.5. Would we preclude homes from certifying just because they have .1 worse air changes per hour? That's like an extra gust of wind, or the someone walking by too quickly at the time of measurement.



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Granite Ridge Builders, Inc.](#)

Respondent Last Name: [Norris](#)

Respondent First Name: [Lonnie](#)

Comments:

General

With a current average HERS rating on our custom homes falling in the mid 50s, we are very concerned that value WILL NOT exceed cost. Even a 45 rating will only result in a \$100-180 yearly savings to the homeowner. Cost estimates to get there exceed 15k. This will be another reg that pushes affordability further a way for many.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Group14 Engineering](#)

Respondent Last Name: [Michael](#)

Respondent First Name: [Harris](#)

Comments:

General

I'd encourage the ENERGY STAR team to carefully consider the implementation date for the program, particularly in regards to the 45L tax credit. There is already a gap between the applicable program version for certification and for the 45L tax credit which makes claiming the tax credit complicated and difficult to project for property owners. If the earliest date of 1/1/2028 is implemented, there are scenarios where a project could permit under Version 1.1 and then have to meet requirements for both versions 1.2 and 1.3 to achieve the 45L tax credit within the same project. This would require 1.3 to be finalized, published, and implemented into rating software very soon for HERS Raters to be able to consult their clients on how to meet the performance targets. If the implementation date is pushed out by a year or two, this gives raters adequate time to advise their clients on which version of the program to target as most multifamily projects have multiyear development and construction timelines.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
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[No Comments](#)

- 2) Do you have additional general feedback on this topic?

[No Comments](#)

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[No Comments](#)

- 2) Do you have additional general feedback on this topic?

[No Comments](#)

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[No Comments](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

2) Do you have additional general feedback on this topic?

[No Comments](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Home Ventilating Institute](#)

Respondent Last Name: [Lynch](#)

Respondent First Name: [Joshua](#)

Comments:

General

The Home Ventilating Institute (HVI) is an ISO 17065 compliant and accredited certification body and a trade association representing over 100 manufacturers located in North America, South America, Asia, and Europe. Our manufacturer members provide the residential and light commercial ventilating products that deliver essential indoor air quality to homes and businesses.

The HVI-Certified Products Directory (CPD) contains performance ratings for a wide range of products, including heat and energy recovery ventilators (HRVs and ERVs), bath/utility room exhaust fans, kitchen exhaust fans, dryer exhaust duct power ventilators, in-line supply and exhaust fans, whole-house fans, duct termination fittings, and soffit vents, among others. The CPD is a trusted source for compliance information used by entities such as California's Modernized Appliance Efficiency Database System (MAEDbS), the State Appliance Standards Database (SASD), Oregon, Vermont, Washington D.C., Maryland, New Jersey, New York, Nevada, Rhode Island, Colorado, Massachusetts, and Washington.

HVI appreciates the opportunity to present comments on the Proposed National ENERGY STAR® Residential New Construction requirements. HVI supports the development of “above code” programs that encourage the specification and use of energy efficient ventilation systems in support of healthy IAQ.

HVI supports the proposed changes to the single family V3.3 and multifamily V1.3 specifications including the more stringent requirements to the reference design mechanical ventilation requirements. Specifically:

- Increasing the fan efficacy of supply systems in climate zones 1-4
- Upgrading climate zones 6-8 from exhaust-only to HRVs and ERVs which matches IECC 2024

Thank you for the opportunity to present these comments. Please direct any questions to Joshua Lynch, HVI's Chief Program Officer (compliance@hvi.org).

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[No comment.](#)

- 2) Do you have additional general feedback on this topic?

[No](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

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ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

[No comment.](#)

- 2) Do you have additional general feedback on this topic?

[No](#)

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[No Comment](#)

- 2) Do you have additional general feedback on this topic?

[No](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Institute for the Building Envelope \(IBE\)](#)

Respondent Last Name: [Not Provided]

Respondent First Name: [Not Provided]

Comments:

General

Dear Mr. Passe,

The Institute for the Building Envelope (IBE), a trade association comprised of industry leaders who work to improve the energy efficiency of commercial and residential buildings, supports the ENERGY STAR Residential New Construction program (ENERGY STAR) and is encouraged by the U.S. Environmental Protection Agency's (EPA) efforts to update the ENERGY STAR program to reflect the changes to the model energy code adopted into the 2024 International Energy Conservation Code.

The ENERGY STAR program is a key tool to help builders construct more energy efficient buildings and reduce the greenhouse gas (GHG) emissions associated with heating and cooling these structures. IBE wants to work directly with EPA to develop the most effective version of ENERGY STAR 3.3 possible. We anticipate that an ENERGY STAR program that strikes a balance between home affordability, flexibility, and how builders comply with the state building codes will drive further adoption of ENERGY STAR. This approach will result in more energy efficient new homes and drive down GHG emissions associated with their operation.

Accordingly, IBE is proposing EPA adopt a more flexible approach to the thermal envelope backstop and the development of an energy rating index (ERI) path for ENERGY STAR 3.3.

The thermal envelope backstop in the ENERGY STAR 3.2 program penalizes builders that comply with state energy efficiency codes via the performance path by mandating compliance with the prescriptive thermal envelope requirements of the 2021 IECC for certification. This approach does not provide a benefit for a builder that exceeds energy efficiency by more than 10%, compared to the 2021 IECC baseline, via any of the options included in the performance path.

This approach to ENERGY STAR 3.2 fails to consider affordability, flexibility, and how builders comply with the IECC.

For ENERGY STAR 3.3, IBE proposes creating two compliance pathways. The first is pathway based upon an 8% thermal conductivity allowance in climate zones 1 and 2 and a 15% thermal conductivity allowance in climate zones 3-8, as consistent with the new provisions of the 2024 IECC for above-code programs (Section R104.1.1). The second pathway is based upon a 10% improvement of the ERI path in the 2024 IECC (Section R406.5).

ENERGY STAR 3.2 and the Performance Path Penalty

There are two issues stemming from mandating compliance with the 2021 IECC as the thermal backstop in ENERGY STAR 3.2. First, the energy rating index (ERI) targets in the 2021 IECC are lower than the ERI score of the prescriptive home. Second, EPA requires all homes to comply with the building envelope requirements of the 2021 IECC, even if a builder exceeds the energy efficient requirements in the performance path of the state energy efficiency code.

By mandating the prescriptive path, EPA is taking away a builder's judgment and expertise in building a home that already exceeds energy efficiency requirements in their service area and ENERGY STAR's minimum goal of exceeding code by 10%. Builders will be hamstrung from using all tools and innovations available to meet these energy efficiency requirements at a cost-effective return on investment.

Path One: ENERGY STAR 3.3 and Thermal Envelope Backstop

For ENERGY STAR 3.3, IBE proposes aligning the thermal envelope backstop with the thermal conductivity allowance in the 2024 IECC. This would allow an 8% thermal conductivity allowance in climate zones 1 and 2 and a 15% thermal conductivity allowance in climate zones 3-8, as consistent with the new provisions of the 2024 IECC for above-code programs (Section R104.1.1).

IBE has determined that even if the entire TC allowance was applied to the attic, builders would still be required to install reasonable insulation levels in attics. We do not anticipate builders to solely focus on a reduction of insulation in an attic,



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

however, this can be considered an extreme example. IBE does not anticipate the TC allowance will result in significant decreases in insulation requirements but would allow the builder flexibility, while not changing the home's energy performance. This should alleviate concerns that a TC allowance would not require sufficient insulation in the respective climate zones to ensure that the goals of the ENERGY STAR Program are met.

Path Two: ENERGY STAR 3.3 and an ERI Path

The ERI path for compliance with state energy efficiency codes is a widely accepted practice by many of the largest builders in the United States. Creating a simple and explicit ERI path in ENERGY STAR 3.3 is a logical solution to help more production builders adopt the ENERGY STAR program.

IBE recommends creating a new compliance path within ENERGY STAR based upon a 10% improvement of the ERI path (Section R406.5). This approach is solely based upon the ERI path, without onsite renewables and without any mandated envelope requirements.

Climate Zone	ERI w/o Opp	10% Reduction for 3.3
0, 1, 2	51	45
3	50	45
4	53	47
5	54	48
6	53	47
7, 8	52	46

Conclusion

IBE appreciates the opportunity to submit comments to EPA regarding the development of ENERGY STAR 3.3. IBE supports the creating a thermal envelope backstop based upon a thermal conductivity allowance and creating a new compliance path based upon the ERI path in the IECC.

IBE believes these changes will help ENERGY STAR balance home affordability, flexibility, and how builders comply with the state building codes will drive further adoption of ENERGY STAR.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
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[No Comment]

- 2) Do you have additional general feedback on this topic?

[No Comment]

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[No Comment]

- 2) Do you have additional general feedback on this topic?



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

[\[No Comment\]](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Latsis Custom Homes](#)

Respondent Last Name: [Latsis](#)

Respondent First Name: [Jim](#)

Comments:

General

Based on recent bidding on projects, meeting these continuously evolving requirements is increasing building cost faster than improving energy efficiency. I would like to see E-Star evaluate and balance the more stringent rules against housing cost increases and affordability. Does the 10% goal make enough improvement to justify the inevitable price increase to cover the additional materials and labor required for compliance? Additionally, the rapid rollout schedules have created confusion for builders, energy consultants and the jurisdictions. The multiple paths to achieve compliance with current IECC, while providing flexibility in theory, cause delays in reviewing and permitting homes. They have also created a costly cottage industry for energy consultants adding significant cost to each home. We have built energy efficient homes for 20+ years and believe in the E-Star mission but we see a need for balance.

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The accounting on cost for the homeowner does not account for the actual incurred cost and price increase to the home for a small perceived benefit. E-Star must consider a law of diminishing return as they evaluate the more stringent requirements. The homes are moving away from affordability with each requirement. In many cases, the compliant product choices are limited as the manufacturers cannot keep pace with the regulation changes. The build cost difference between 2018 and 2021 IECC is significant and the actual energy savings must be calculated in the context of how many homeowners got knocked out of the market at the higher purchase price.

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

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[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[The air change may be achievable but at what cost and to what benefit? Has enough study been done to verify the benefit?](#)

2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [Leading Builders of America \(LBA\)](#)

Respondent Last Name: [Hickman](#)

Respondent First Name: [Amanda](#)

Comments:

General

Thank you for the opportunity to submit comments on behalf of Leading Builders of America (LBA). As we previously noted, a recent survey of our member companies reveals a significant decline in program participation due to the inflexibility of the envelope backstop requirements of the 2021 IECC. While LBA supports the advancements in energy savings and flexibility introduced in the 2024 IECC, limiting the ENERGY STAR program to a rigid cap based on the envelope performance requirements of either the 2021 or 2024 IECC does not provide the flexibility builders need to remain engaged in the program.

Without adequate flexibility to achieve the program's ambitious energy efficiency targets, the associated tax credit incentives may lose their value, diminishing the program's relevance. This erosion of support could weaken the case for sustaining these critical tax credits in next year's tax policy discussions.

Regarding multifamily housing, we are concerned that the associated cost with the proposed requirements for MFNC v1.3 undermine affordability, especially for entry-level options. The cost-value proposition illustrated in the performance of the reference design requires more scrutiny.

We request that cost estimates be shared with LBA for independent analysis and validation, as the reported costs appear unrealistically low while the projected savings seem overstated. For instance, the estimated monthly savings exceed the actual monthly utility costs in some instances, raising questions about the accuracy and feasibility of these projections.

Ultimately, even substantial monthly energy savings are irrelevant if buyers cannot qualify for the mortgage due to higher upfront costs. Addressing affordability and financing eligibility is essential to ensuring these requirements are practical and achievable for prospective homeowners.

We trust that our comments and recommendations will be given careful consideration as the program moves forward.

Definition of more stringent performance targets in new versions

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The proposed ERI target is achievable only if the full range of options provided by the 2024 IECC remains available, without unnecessary restrictions imposed by a 2021 or 2024 envelope hard cap.

- 2) Do you have additional general feedback on this topic?

Additionally, it is premature to propose the sunset of Track B in favor of ANSI 310 HVAC Grading (Track A) as a requirement for the v3.3/1.3 program. Given that updates to ANSI 310, along with MINHERS addenda, are not expected to take effect until the January 1, 2026, Permit Date, end users should first confirm these updates as beneficial improvements before any consideration is given to phasing out Track B.

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

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ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

The 2024 IECC envelope backstop does not offer much more flexibility over the 2021 IECC envelope backstop and will not inspire continued participation in the program. ENERGY STAR should remain a truly performance-based approach allowing designers to optimize energy performance holistically with the ability to leverage trade-offs across different building systems. Overly restrictive prescriptive requirements may prevent builders from investing in other energy-saving measures that could result in better overall efficiency. For example, if ENERGY STAR requires adherence to more insulation even in a region where investing in better HVAC efficiency could provide greater energy savings, builders are still bound by the backstop.

Climate zones and building types vary significantly, but prescriptive requirements do not always account for this diversity. This can lead to inefficient outcomes which can lead to unnecessary costs and lost energy benefits. Additionally, focusing too heavily on prescriptive backstops can stifle innovative approaches to energy efficiency. Builders might avoid using emerging technologies and materials or advanced designs that exceed the performance targets to meet envelope backstops. There are also missed opportunities for system integration when specific and overly stringent backstops are put in place. Overreliance on components and not the overall system interacting optimally to maximize energy efficiency suffers.

Lastly, prescriptive backstops can lead to higher costs without proportional energy savings. A true performance-based approach provides a better return on investment, while also meeting or exceeding energy savings goals.

If guardrails for the envelope must be put in place, a more appropriate backstop would be to mirror what was included in the 2024 IECC for above code programs, where the proposed total building thermal envelope thermal conductance (TC) shall be less than or equal to the total building thermal envelope TC using the prescriptive U-factors and F-factors from Table R402.1.2 multiplied by 1.08 in Climate Zones 0, 1 and 2, and by 1.15 in Climate Zones 3 through 8, in accordance with Equation 1-1. The area-weighted maximum fenestration solar heat gain coefficients (SHGC) permitted in Climate Zones 0 through 3 shall be 0.30. This was already robustly discussed by stakeholders involved in the IECC development process and overwhelmingly approved by the IECC consensus committee.

- 2) Do you have additional general feedback on this topic?

[No Comment]

More stringent infiltration backstop for the new version of the SFNH Program

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[No Comment]

- 2) Do you have additional general feedback on this topic?

[No Comment]



ENERGY STAR Single-Family New Homes, National Version 3.3 ENERGY STAR Multifamily New Construction, National Version 1.3 Comments Received

Organization Name: [National Association of Home Builders \(NAHB\)](#)

Respondent Last Name: [Kochkin](#)

Respondent First Name: [Vladimir](#)

Comments:

General

On behalf of the National Association of Home Builders (NAHB), I am submitting the following comments to the U.S. Environmental Protection Agency (EPA) on its proposed future national program requirements for ENERGY STAR Single Family New Homes (SFNH) Version 3.3 and ENERGY STAR Multifamily New Construction (MFNC) Version 1.3.

NAHB is a Washington, D.C.-based trade association that represents more than 140,000 members and includes more than 700 affiliated state and local associations in all fifty states, the District of Columbia, and Puerto Rico. NAHB members design, construct, and supply single-family homes, build and manage multifamily projects, and remodel existing homes. In the single-family market, NAHB's members construct custom housing as well as homes for first-time home buyers, including low- and moderate-income families and individuals. NAHB's multifamily members build and manage rental housing for renters in market-rate, affordable, and federally assisted multifamily housing. Our members are proud to construct over 80 percent of the homes produced each year that provide shelter for this nation's families.

NAHB supports the goals of the ENERGY STAR for Homes program to deliver energy efficiency gains and utility savings to American consumers in a cost-effective manner. We support EPA's effort to develop an updated ENERGY STAR for Homes program based on the latest published edition of the International Energy Conservation Code – the 2024 IECC. However, we have several significant concerns with the draft requirements in SFNH v3.3 and MFNC v1.3. We urge EPA to address the issues detailed below so that that new ENERGY STAR requirements do not limit the flexibility to find cost-effective solutions that homebuilders need to justify their continued participation in this program.

Thank you for your consideration of our recommendations below. Should EPA staff have questions or would like to discuss these comments further, please contact Vladimir Kochkin at 202-266-8574 / vkochkin@nahb.org or Paul Karrer at 202-266-8300 / pkarrer@nahb.org.

Definition of more stringent performance targets in new versions

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 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

During the introductory webinar hosted on October 24, 2024 (<https://www.energystar.gov/sites/default/files/2024-10/ENERGY%20STAR%20Proposed%20National%20Requirements%20v3.3-v1.3%20Proposal%20Webinar%20Slides.pdf>), EPA staff indicated that the updated requirements were developed to account for the future increases in minimum efficiency standards for heating and cooling equipment. However, it is important that v3.3 can become a viable alternative to v3.2 immediately after its release. Therefore, EPA should consider a shorter time horizon when establishing requirements for v3.3. EPA has stated many times its goal of exceeding the base energy code by 10%. The webinar slides show energy savings ranging from 14% to 20%. We recommended that EPA recalibrates its analysis to achieve targets closer to its stated goal of 10%. This change, along with the recommendation on envelope backstops, may allow many builders to bypass v3.2 and pursue certification to v3.3. EPA should not be approaching v3.3 as an aspirational target for future implementation. Furthermore, even though DOE has issued final rules for updated efficiency standard for certain equipment categories to go into effect in the future, the rules are subject to change (either through challenges via litigation or



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through revisions or even withdrawal via the federal rulemaking process).

2) Do you have additional general feedback on this topic?

It is not clear why climate zone 4C is singled out to require higher efficiency water heating equipment and lower flow showerheads and faucets compared to other climate zones. ENERGY STAR for Homes is a national program and should promote consistency and uniformity in its minimum program requirements to help scale up the implementation of energy efficient practices.

EPA includes results of a cost-effectiveness analysis in the webinar slides. It is critical that EPA publishes a comprehensive report with all details of the methodology used to develop the cost-effectiveness results. The report must include all sources of cost information and other inputs and should be posted for public review and comment before SFNH v3.3 and MFNC v1.3 can be finalized. Alternatively, EPA should remove all references to a cost-effectiveness analysis and include a statement that a cost-effectiveness analysis was not conducted.

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

We support the notion of aligning the thermal backstop with the 2024 IECC. EPA staff noted during the webinar that the 2024 IECC represents the latest consensus on this topic. However, the proposed program requirements stop significantly short of aligning itself with the 2024 IECC. The language used by EPA stating that that it proposes to “align...with the prescriptive path of the 2024 IECC” is a misnomer and is incorrect.

In its evaluation of the 2024 IECC prescriptive provisions, EPA is ignoring a key change that was approved by the ICC residential energy consensus committee specifically for the prescriptive path. In recognizing that the levels of wall insulation in CZ 4 and 5 added in the 2021 IECC were not at all cost-effective, the committee built in an allowance in Section R408.2.9 (Opaque Walls) to use R20 walls instead of R20+5. For mixed-fuel homes, the user must accumulate 3 additional credits in Section R408 (Additional Efficiency Requirements), which effectively works as a performance trade-off. For all-electric homes, the user can choose the allowance if they select a heat pump or a heat pump water heater from Section R408.2 without needing to achieve 3 additional credits. The basic concept of Section R408.2.9 opaque wall is about allowing envelope trade-offs even in the prescriptive path.

The 2024 IECC consensus committees spent a significant amount of time debating and developing an appropriate envelope backstop for the performance compliance paths and agreed on the same backstop for all three paths: Section R405 (Simulated Building Performance), Section R406 (Energy Rating Index), and Appendix RC (Zero Energy Residential Building Provisions). We would like to draw EPA’s attention to the fact that ENERGY STAR for Homes is, and has always been, a performance-based program. Therefore, aligning the program with the envelope backstops approved for the IECC specifically for the performance paths would provide continuity between the code requirements and the ENERGY STAR program requirements. It is also noted that the 2024 IECC made significant changes to Section R405 in allowing equipment trade-offs and duct performance trade-offs within the range of the new envelope backstops. The consensus committee did not impose different envelope backstops even on the Zero Energy appendix. Moreover, the consensus committee discussed and approved the same backstop specifically for above-code programs such as ENERGY STAR via the following language:

“R104.1.1 Above code programs.

The code official or other AHJ shall be permitted to deem a national, state or local energy-efficiency program to exceed the energy efficiency required by this code. Buildings approved in writing by such an energy-efficiency program shall be considered to be in compliance with this code where such buildings also meet the requirements identified in Table R405.2 and the proposed total building thermal envelope conductance (TC) shall be less than or equal to the total building thermal envelope TC using the prescriptive U-factors and F-factors from Table R402.1.2 multiplied by 1.08 in Climate Zones 0, 1 and 2, and by 1.15 in Climate Zones 3 through 8, in accordance with Equation 1-1. The area-weighted maximum



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fenestration solar heat gain coefficients (SHGC) permitted in Climate Zones 0 through 3 shall be 0.30.”

For MFNC v1.3, a similar concern applies – the envelope backstop should be aligned with the commercial provisions of the 2024 IECC for the design of the envelope. The program requirements should not apply further constraints on the building designer’s ability to find the right balance of systems for each specific multifamily project.

- 2) Do you have additional general feedback on this topic?

The envelope backstops from the 2024 IECC performance provisions will better align SFNH v3.3 with the general approach EPA used for the envelope provisions and the backstops in v3.1. We encourage EPA to continue the program in its tradition of performance compliance with minimum restrictions on building designer’s ability to find an optimal solution for each project. It is the role of the code to establish minimum requirements. ENERGY STAR should focus on the performance targets and on the quality measures that support delivery of the promised performance goals to the consumer.

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

We offer no additional comments on this response prompt.

- 2) Do you have additional general feedback on this topic?

We offer no additional comments on this topic.



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Comments Received

Organization Name: [North American Insulation Manufacturers Association](#)

Respondent Last Name: [Haack](#)

Respondent First Name: [Charlie](#)

Comments:

General

[N/A](#)

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For [SFNH](#), initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For [MFNC](#), for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[N/A](#)

- 2) Do you have additional general feedback on this topic?

[N/A](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[NAIMA agrees that including a thermal envelope backstop as a mandatory requirement is important in supporting the ENERGY STAR brand promise to consumers of ensuring comfort and locking in long-term energy savings.](#)

[However, referencing the Total UA of the 2024 IECC in Version 3.3 is a rollback in efficiency levels from the Total UA of the 2021 IECC, which was previously referenced in ENERGY STAR SFNH Version 3.2.](#)

[NAIMA proposes that rather than a Total UA calculation \(now referred to as the Component Performance Alternative in the 2024 IECC\), that the mandatory backstop aligns with the individual maximum assembly U-values contained in Table R402.1.2 of the 2024 IECC. This position ensures both improved efficiency and comfort while providing flexibility for builders.](#)

[1. Builders support the 2024 IECC assembly insulation levels. In response to builder input, the 2024 IECC included lower thermal envelope insulation levels. Much of the discussion surrounded the R-49 and R-60 insulation levels in ceilings that were included in the 2021 IECC. These higher insulation levels are no longer included in the 2024 IECC. The approach of leveraging assembly U-values aligns with what builder had asked for in the 2024 IECC in moving away from insulation assembly insulation levels in the 2021 IECC.](#)

[2. Numerous options for assembly compliance. Builders consistently ask for flexibility in meeting envelope requirements. New in the 2024 IECC is a clear listing of the U-factor options for assemblies in Appendix RF, giving builders a comprehensive array of options that clearly meet thermal envelope requirements and removes previous constraints of a few simple prescriptive options. <https://codes.iccsafe.org/content/IECC2024P1/appendix-rf-alternative-building-thermal-envelope-insulation-r-value-options>.](#)

- 2) Do you have additional general feedback on this topic?



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NAIMA appreciates the opportunity to provide comments on the thermal envelope backstop changes in EPA's ENERGY STAR SNFH Version 3.3 proposal.

NAIMA's proposed alternative will ensure a sound thermal envelope that delivers energy savings for consumers while also addressing the desire of builders to have more flexibility and options for compliance.

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

N/A

- 2) Do you have additional general feedback on this topic?

N/A



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Comments Received

Organization Name: [Northeast Home Energy Rating System Alliance \(NEHERS\)](#)

Respondent Last Name: [Zeis](#)

Respondent First Name: [Cindy](#)

Comments:

General

This feedback is being issued on behalf of the Standards Committee of the Northeast Home Energy Rating System Alliance, which represents more than 260 Raters and 11 Providers from New Jersey to Maine.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[No Comment](#)

- 2) Do you have additional general feedback on this topic?

[No comment](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[We would like to see flexibility in the backstops, e.g., ceiling insulation could be lower r-value if continuous insulation were used e.g., SIPs and other strategies. Aligning the backstop with the 2021 IECC would more closely align with current DOE ZERH v2 requirements. If using more stringent backstops, allowance of alternate u-value tables may be allowed.](#)

- 2) Do you have additional general feedback on this topic?

[Our concerns are that not enough consideration is being made for more progressive, energy efficient strategies and components.](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[We would like to see an alternative for attached single-family dwellings to allow the use of the .27cfm50/sq.ft. as allowed under the multifamily guidelines, or ACH50 adjusted using the RESNET 301 adjustment factor.](#)

- 2) Do you have additional general feedback on this topic?

[We would like to restate our view on the HVAC grading requirement. This adds substantial time to a HERS Rater/Verifier's](#)



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workscape. Allowing Track A & Track B would be preferable to offset this burden.

Training: We would like to see a training requirement similar to what has been proposed for QADs. This could simply be allowing the HCO to utilize the EPA's version/revision launch video as a means to require viewing of the updates. Make this available through the HCOs training portals.



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Comments Received

Organization Name: [PEG, LLC](#)

Respondent Last Name: [Cooper](#)

Respondent First Name: [Matthew](#)

Comments:

General

[PEG, LLC is in favor of the National Program Requirement proposed changes/updated requirements as they are written.](#)

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For [SFNH](#), initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For [MFNC](#), for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[PEG, LLC is in favor of the proposed performance targets.](#)

- 2) Do you have additional general feedback on this topic?

[No](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[PEG, LLC is in favor of the proposed thermal backstop alignment.](#)

- 2) Do you have additional general feedback on this topic?

[No](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[PEG, LLC is in favor of the proposed infiltration backstop.](#)

- 2) Do you have additional general feedback on this topic?

[No](#)



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Comments Received

Organization Name: RESNET

Respondent Last Name: Elam

Respondent First Name: Laurel

Comments:

General

RESNET appreciates the opportunity to submit comments on the ENERGY STAR Version 3.3 proposal. RESNET is concerned that the way that the proposal is structured it will place an unnecessary burden on builders to achieve ENERGY STAR.

RESNET's concern is not the target of energy performance set by EPA but the inadequate flexibility for builders to make economic performance option decisions to achieve the target goals.

The U.S. is facing a housing affordability crisis. There is a dire need for both the availability of new affordable housing and the need to address the climate challenge.

Until the mortgage process is reformed to account for energy savings reducing the cost of housing in the home loan, a balance must be achieved. This can be best met with allowing builders the maximum flexibility to meet energy performance targets.

The proposed language unfortunately does not adequately provide this needed flexibility.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

The proposed energy performance targets are achievable if the performance options provided by the 2024 IECC become available.

- 2) Do you have additional general feedback on this topic?

[No Comment]

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

The 2024 IECC provides the flexibility of trade offs from the 2021 IECC's wall insulation requirements via the performance pathway that allows builders to trade wall insulation for lower air infiltration and greater mechanical efficiency (among other options). There's also a similar measure designed for above code programs (Section R104.1.1).

RESNET advocates that this performance flexibility be incorporated into version 3.3.

- 2) Do you have additional general feedback on this topic?

[No Comment]

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program



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requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[\[No Comment\]](#)

2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



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Comments Received

Organization Name: [RESNET Emerging Leadership Coalition \(ELC\)](#)

Respondent Last Name: [Christesen](#)

Respondent First Name: [Julie](#)

Comments:

General

Our primary discussion was around the infiltration backstop. We oppose implementing a firm backstop, especially one that doesn't account for climate zone, or isn't tiered. We think a better choice would be to reward a lower ACH, instead of punish a higher one.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
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[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[We disagree with all versions suggested of a firm infiltration backstop as proposed.](#)

[Specific to this version, this backstop is unreasonable. In any instance, it should be tiered by climate zone. There is a reason the climate zones have different infiltration requirements for code – there are different needs. If you require this, you will be precluding good, well built, energy star houses that don't want to use spray foam from the Energy Star program. Even if homes without spray foam do hit 3.5 ACH, in my opinion, it is incredibly difficult to do this on every house, every time. You're taking away builder choice of insulation, and you're moving towards requiring](#)



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advanced ventilation equipment that just isn't consistently available yet. You're leaving so much up to chance, and until this moment, the ACH has had little to no impact on the ERI target/HERS index. The difference between a 5 and a 3.5 ACH, right now, modeled, has less than a .5 impact on the final HERS index.

If you make this proposed change, you're going from something that does not have any significant impact to something that has the MOST impact. Something that could preclude a home from getting energy star if it has 10 CFM too much leakage.

2) Do you have additional general feedback on this topic?

Our primary discussion was around the infiltration backstop. We oppose implementing a firm backstop, especially one that doesn't account for climate zone, or isn't tiered. At the moment, a difference in a 5 ACH and 3.5 ACH is so nominal that it generally does not change a HERS index even .5 of a point, and with this proposed change Energy Star is proposing to make the infiltration backstop the MOST important factor, because if you don't hit it, you don't qualify for Energy Star. This feels sudden and punitive. Additionally, so much more work needs to be done on advanced ventilation equipment before Energy Star starts basically requiring it in every home. The guidelines are not clear, there aren't many great options for equipment, and it's confusing. Finally, this low infiltration backstop basically takes away the choices of builders to use insulation that isn't spray foam and fully encapsulate their homes. Energy Star works because there are choices in how builders and raters meet their goals – this essentially takes away the choice for any other type of insulation that isn't spray foam.

A much better way to go about this would be to incentivize a lower ACH infiltration volume. For example, it could have a much larger impact on the HERS index/ERI target than it currently does, and builders could make their choices on how to hit that ERI. If, in version 3.3, an ACH of 3.5 provided significant benefit over an ACH of 4.5 or 5, Energy Star could start to get an idea of how reasonable of a request this is and how often it's being taken advantage of, instead of precluding houses that are built well, to Energy Star standards, that get an ACH of 3.6 instead of 3.5. Would we preclude homes from certifying just because they have .1 worse air changes per hour? That's like an extra gust of wind, or the someone walking by too quickly at the time of measurement.

Hopefully when you're reading things, you're starting to get a better understanding of real world implications.



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Comments Received

Organization Name: Rheem Manufacturing Company

Respondent Last Name: Phillips

Respondent First Name: James

Comments:

General

Gas-fired Water Heaters

The SFNH water heater levels for versions 3.0 and 3.1 only required an increase of 0.01-0.03 EF above the DOE minimum. On September 15, 2022, the SFNH version 3.2 levels significantly increased the efficiency requirement to 0.90 UEF. Similarly, the MFNC versions 1.0 and 1.1 set the gas-fired water heater efficiency at the same level required by the Energy Star Product Specification for Residential Water Heaters version 3.1 (≤ 55 gal: 0.67 UEF; > 55 gal: 0.77 UEF), which is readily achievable, but the latest version 1.2 (published September 22, 2022) significantly increased the requirement to 0.90 UEF. At the time of these changes 0.90 UEF was only achievable with gas-fired instantaneous water heaters. Many energy codes under development at the time were pushing gas-fired water heating away from storage and to instantaneous technology. As thinking around the energy code and decarbonization has progressed, it is becoming clear that the installation of an instantaneous water heater will result in a significant cost later in the life of the building if electrification is required. To electrify most gas-fired instantaneous water heater installations, either a very large panel upgrade is required to accommodate a whole-home electric instantaneous water heater, or a closet expansion/water heater relocation is required to fit a heat pump water heater. States that regularly adopt energy code updates are more likely to adopt electrification measures, such as building performance standards or zero NOx/GHG emission standards. Rheem recommends EPA set UEF levels that allow either instantaneous or storage water heaters to comply. Rheem notes that residential gas-fired storage water heaters with ≥ 0.90 UEF have recently become available and should not be excluded by this specification. Rheem recommends EPA reevaluate the SFNH and MFNC proposals to align with the current Energy Star Product Specifications for Residential Water Heaters (0.86 UEF for storage and 0.95 UEF for instantaneous). Alternatively, EPA could maintain the 0.90 UEF requirement for storage water heaters. This would be an increase to the required efficiency to a level higher than the additional efficiency requirements from section R408 of IECC 2024 (i.e., measures R408.2.3(1)(a) ≥ 0.81 UEF or R408.2.3(1)(b) ≥ 0.86 UEF).

Electric Water Heaters

Rheem requests that the 60-gallon proposal for electric water heaters be removed. Electric storage water heaters ≤ 120 gallons are used in residential applications within both single and multi-family buildings. Further, the low UEF values proposed are readily achievable at all volumes.

Gas-fired Boilers

The presentation does not appear to address boilers, and the EPA has previously expressed interest in sunsetting the gas-fired boiler product specification. Rheem notes that the DOE standards are low enough to allow non-condensing boilers to be sold and DOE has not finalized their ongoing rulemaking for these products. Rheem would like to confirm the boiler compliance pathway isn't being removed.

Supporting Documentation

Rheem requests EPA publish supporting documentation on the calculation methodology performed to evaluate the $\geq 10\%$ increase from IECC 2024. The summary of the analysis performed that was presented in the webinar is inadequate to review and appropriately comment on the changes being proposed.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI



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targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



ENERGY STAR Single-Family New Homes, National Version 3.3 ENERGY STAR Multifamily New Construction, National Version 1.3 Comments Received

Organization Name: South-central Partnership for Energy Efficiency as a Resource (SPEER)

Respondent Last Name: Plumlee

Respondent First Name: Randy

Comments:

General

SPEER is one of six regional energy efficiency organizations designated by the US Department of Energy. In this capacity, SPEER supports energy and building code adoption, education, and compliance efforts throughout our region. We promote energy efficiency solutions and policies which provide energy savings and reduce total demand and peak demand to the grid. Within these efforts, SPEER would like to submit this stakeholder comment form in regards to the proposed ENERGY STAR National Program requirements.

SPEER supports the proposed changes to the ENERGY STAR National Program requirements for both Single-Family New Homes Version 3.3 and Multifamily New Construction Version 1.3. In order for the SNFH and MFNC to achieve a minimum 10% savings in all climate zones these proposed changes are necessary to keep up with the new 2024 IECC. Achieving the primary goal of 10% savings relative to the 2024 IECC in all climate zones, individuals and businesses not only reduce their consumption of energy, but also save significant dollars that can be reinvested into local economies. Additionally, achieving a minimum savings of 10% beyond the 2024 IECC creates even greater efficiency of homes since the 2024 IECC standards are estimated to roughly 6-8% more efficient than the 2021 IECC. We would like to highlight the net cash flow being positive leading to cost effective improvements for individuals that have utilized these measures

Relating to the two other goals of this proposal, we support the more stringent performance targets aimed at thermal backstop and infiltration backstop as these promote greater efficiency of the home envelope. Thereby, reducing consumption, increased air quality, and keeping homes comfortable for longer durations. This is particularly important in regions that experience high frequencies of extreme weather events, like Texas and Oklahoma, where SPEER operates. The updated goals are also achievable, as noted at the October 24th webinar by ENERGY STAR that over 50% of existing ENERGY STAR certified SFH's already within rating limits.

It is our belief that the analysis used to test both SFNH Version 3.3 and MFNC Version 1.3 are robust, well reasoned, and necessary as the 2024 IECC standards will be adopted by state and localities across the nation soon. Overall, we support the decision by ENERGY STAR to propose more stringent performance targets and will go into further detail in the questions below.

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
 - a) For SFNH, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~45-50 for most homes.
 - b) For MFNC, for most dwelling units in the ERI Path, initial modeling indicates the proposed ENERGY STAR ERI targets will be ~40-50; for buildings following the ASHRAE Path, the proposed performance target is 15% savings over ASHRAE 90.1-2022; and for buildings following the Prescriptive Path, the proposed measures of the ENERGY STAR MFNC v1.3 Reference Design are required.

By setting ERI targets around 45-50 for SFNH and 40-50 for most MFNC units, along with a 15% savings goal over ASHRAE 90.1-2022, these measures encourage builders to adopt higher efficiency standards. This will not only reduce energy costs for residents but also support broader environmental goals by minimizing carbon footprints in new construction.

- 2) Do you have additional general feedback on this topic?

SPEER is supportive of the more stringent performance targets as they will lead to higher levels of efficiency savings for both SFNH and MFNC projects.

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

- 1) The EPA is proposing to align the thermal backstop of the next national program versions with the prescriptive path of the 2024 International Energy Conservation Code. This continues prior precedent of aligning with the prescriptive path of the IECC edition that the version was developed in response to. Do you have any specific feedback on the proposed thermal backstop for the new program versions?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

Aligning the thermal backstop with the prescriptive path of the 2024 IECC is a smart and practical approach. This alignment maintains consistency with established energy codes, making it easier for builders to understand and meet program requirements while promoting higher efficiency standards in line with current industry practices. This continued alignment supports streamlined compliance and encourages widespread adoption of improved building envelope performance, benefiting both homeowners and the environment.

More stringent infiltration backstop for the new version of the SFNH Program

- 1) The EPA has previously proposed introducing an infiltration backstop in the next revision of its SFNH program requirements, with a backstop of 4.5 ACH50 for National v3.1 and 4.0 ACH50 for National v3.2, with an alternative for homes smaller than 1,500 sq. ft. and attached homes. For the next national version of the SFNH program requirements, the EPA is proposing to advance the infiltration backstop to 3.5 ACH50, while maintaining the same alternative metric for small homes and attached homes. Is there any reason to believe that this is not achievable for homes certified using the new version?

[\[No Comment\]](#)

- 2) Do you have additional general feedback on this topic?

Advancing the infiltration backstop to 3.5 ACH50 in the next version of the SFNH program requirements is a commendable step forward. Tighter infiltration standards will improve building envelope performance, reducing energy loss and enhancing indoor comfort for homeowners. Maintaining the alternative metric for smaller and attached homes is a sensible approach, recognizing the unique challenges they face while still promoting overall energy efficiency gains. This proposal will help drive the industry toward higher efficiency standards and greater environmental benefits



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

Organization Name: [VandeMusser Design, PLLC](#)

Respondent Last Name: [Vande](#)

Respondent First Name: [Matthew](#)

Comments:

General

[\[No Comment\]](#)

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[\[No Comment\]](#)

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[You mentioned in the webinar that cfm50/sfbe would be allowed as an alternate for townhouses, multi-family, and single-family homes under 1500 SF. Is there a reason why cfm50/sfbe would not be an alternate compliance method for all houses? The answer I received when I asked this question in the webinar was "Simplicity". It just isn't that difficult to calculate both ACH50 and cfm50/sfbe. For as difficult as you are making ES v3.3 to comply with, it would be nice to have this one item be a little more flexible.](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)



ENERGY STAR Single-Family New Homes, National Version 3.3 ENERGY STAR Multifamily New Construction, National Version 1.3 Comments Received

Organization Name: [Window & Door Manufacturers Association \(WDMA\)](#)

Respondent Last Name: [Drumheller](#)

Respondent First Name: [Craig](#)

Comments:

General

[\[No Comment\]](#)

Definition of more stringent performance targets in new versions

- 1) The EPA is proposing more stringent performance targets for the next national versions of the ENERGY STAR Single-Family New Homes (SFNH) and Multifamily New Construction (MFNC) program. Do you have any specific feedback on these proposed new performance targets?
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[WDMA supports increasing the Single-Family New Homes \(SFNH\) and Multifamily New Construction \(MFNC\) requirements to be approximately 10%-15% more efficient than the 2024 IECC. However, we have several concerns regarding how fenestration requirements are addressed in the proposed ENERGY STAR Versions 3.3 and 1.3:](#)

Concerns Glazed Doors Not Properly Incorporated:

[In the current ENERGY STAR specifications, glazed doors \(\$\leq 1/2\$ lite and \$> 1/2\$ lite\) have distinct requirements compared to opaque doors, which vary by climate zone. These distinctions were appropriately included in Version 3.2 but are missing from the proposed tables for Versions 3.3 and 1.3. There should be separate values for the two glazed door categories in the Reference Design tables.](#)

Windows SHGC Values in Climate Zones 4–8:

[The proposed Solar Heat Gain Coefficient \(SHGC\) value of 0.30 for windows in Climate Zones 4–8 is incorrect. The value should instead be 0.40, reflecting values in line with ENERGY STAR.](#)

Uneven Burden on Windows in Reference Design Tables:

[In the National v3.3 and v1.3 Reference Design tables, the entire above-code envelope burden is placed on windows, while the rest of the thermal enclosure aligns with 2024 IECC prescriptive requirements. To comply prescriptively with the MFNC program, windows must meet ENERGY STAR Version 7.0 standards, which creates challenges. When using RESNET 301 performance calculations, credit toward compliance are given for homes with less than 18% window-to-floor area ratios. This incentivizes designs with reduced window area, potentially resulting in perceptions that ENERGY STAR-rated homes are less livable due to limited natural light and views.](#)

WDMA Recommendations:

Modify Performance Compliance Calculations: [Replace the RESNET 301 standard with the IECC Standard Design for performance compliance modeling in Chapter R405. The IECC Standard Design \(Table R405.4.2\(1\)\) includes a 15% window-to-conditioned floor area baseline. This approach does not provide a compliance benefit for having a window area below 15%, but does discourage higher window areas. This change will maintain design flexibility and livability while ensure fair compliance calculations.](#)

Redistribute Building Reference Design Values: [Balance the increased performance requirements across the entire building envelope Reference Design table, rather than concentrating the strict efficiency requirements solely on windows. For example, slightly increase the U-factor for fenestration while correspondingly raising R-values for](#)



ENERGY STAR Single-Family New Homes, National Version 3.3

ENERGY STAR Multifamily New Construction, National Version 1.3

Comments Received

ceiling, wall, floor, and slab insulation. This adjustment would distribute the energy performance burden more evenly across the envelope, achieving the same net efficiency without disproportionately impacting windows.

WDMA appreciates the opportunity to provide feedback and believes these changes will create a more balanced, practical, and effective implementation of ENERGY STAR Versions 3.3 and 1.3. This approach to building envelope requirements will support energy efficiency goals while preserving livability and design flexibility in ENERGY STAR homes.

- 2) Do you have additional general feedback on this topic?

[Note that the preferred thermal terms are R-value and U-factor \(not U-Value\).](#)

Thermal backstop aligned with the 2024 IECC prescriptive path in new versions

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[The 2024 IECC introduces a new thermal backstop that offers greater flexibility by allowing tradeoffs across all building envelope components rather than enforcing strict limits on individual components. Specifically, Section R405.2\(2\) permits:](#)

- [8% tradeoff flexibility for envelope components in Climate Zones 0–2.](#)
- [15% tradeoff flexibility for envelope components in Climate Zones 3–8.](#)

[This approach balances the needs of builders and designers for flexibility while maintaining the overall performance of the building envelope.](#)

[WDMA recommends incorporating the thermal conductance tradeoff backstop from the 2024 IECC \(Equation 4-2\) into SFNH Version 3.3. This would align the program with updated energy efficiency standards and provide a practical framework for meeting performance goals without compromising design flexibility or building performance.](#)

- 2) Do you have additional general feedback on this topic?

[\[No Comment\]](#)

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