

Questions for the Record: Buddy Hughes
National Association of Home Builders
House Energy and Commerce Committee
Subcommittee on Energy
Hearing on “Building the American Dream: Examining Affordability, Choice, and Security in Appliance and Buildings Policies”

The Honorable Robert Latta (R-OH)

1. **The previous administration took a “whole of government” approach to develop and mandate green building policies to end use of fossil energy for heating and cooking. For example, the Biden DOE used a billion-dollar grant program to strong-arm states into adopting controversial “net-zero” building energy codes; the Biden DOE actively encouraged the use of stretch codes that banned natural gas but mandated the installation of EV chargers; and the Biden HUD announced new federal home efficiency mandates for government backed mortgages.**

a. How these policies have already impacted Americans

The previous administration’s “whole-of-government” approach to advancing climate and energy efficiency goals has led to significant changes in federal housing and energy policy. Programs such as DOE’s billion-dollar building energy code grant initiative, HUD and USDA’s new efficiency standards, and updated appliance regulations have already influenced housing costs, energy options, and market dynamics across the country.

DOE’s billion-dollar code program has distorted local housing markets.

Section 50131 of the Inflation Reduction Act directed \$1 billion to incentivize adoption of the unamended 2021 International Energy Conservation Code (IECC) and its zero net energy appendices. While presented as an efficiency initiative, DOE’s implementation left jurisdictions little choice but to adopt a burdensome and expensive unamended edition of the IECC to be eligible to receive funds. In Kansas City, Missouri, adoption of the 2021 IECC without amendments led to a 22 percent decline in single-family permits in just two months, while neighboring communities that kept more flexible codes saw a 117 percent increase. The result: fewer homes built, higher prices, and a shrinking tax base.

Builders also report steep compliance costs—\$9,600 to \$21,400 per home, sometimes exceeding \$31,000 depending on climate zone. One Kansas City builder found the code added more than \$12,000 upfront but yielded only about \$125 a year in energy savings. For a typical family mortgage, that’s roughly \$102 more per month, erasing any long-term savings and pricing out thousands of potential buyers.

HUD and USDA’s national energy-code mandate threatens affordability for low- and moderate-income buyers.

HUD and USDA finalized a rule requiring all new homes they finance to meet the 2021 IECC (and ASHRAE 90.1-2019 for multifamily), despite most states having not yet adopted these standards. Even by HUD’s modest estimates, the rule adds on average \$7,200 per home, pricing out roughly

724,000 households, and exceeding the requirements of the codes adopted in 41 states, creating confusion, construction delays, and appraisal problems. Although President Trump has paused implementation for further review, builders, lenders, and home buyers are already facing uncertainty and project delays due to the rushed rollout.

DOE's electrification push and appliance rules are limiting consumer choice and driving up energy costs.

Beyond building codes, the previous administration advanced appliance standards and other incentives that push households toward all-electric homes. DOE's recent rules will effectively ban non-condensing gas furnaces after 2028 and require most electric water heaters above 35 gallons to use heat-pump technology beginning in 2029. These mandates increase installation costs, create supply-chain challenges, and eliminate lower-cost options for consumers.

At the same time, state policies have encouraged natural gas bans in new construction from New York to Washington State. In cold climates, fully electric packages can add \$15,000 or more to the cost of a home, costs most families cannot absorb. The average household relying on electricity already pays about 42 percent more for heating than those using natural gas, and over the past decade, affordable U.S. gas supplies have saved residential customers \$125 billion.

Mandates focus on new construction instead of real efficiency opportunities.

Modern homes already meet rigorous energy-efficiency standards. According to the National Renewable Energy Laboratory, upgrading the nation's 130 million existing homes built before modern codes could cut electricity use by 5.7 percent annually, far greater savings than forcing new homes into costly code cycles. Yet federal policy has prioritized new-home mandates over retrofitting the aging housing stock, missing the most cost-effective path to genuine energy gains.

Together, these policies have made housing less attainable and energy less affordable. Builders are constructing fewer homes, families are paying more for both mortgages and monthly utility bills, and consumers are losing the ability to decide what energy sources and appliances best meet their needs. Until flexibility and energy choice are restored, Americans will continue to bear the costs of this misguided, one-size-fits-all federal approach.

2. The National Association of Home Builders estimates that compliance with the 2021 International Energy Conservation Code (IECC) could add up to \$31,000 in additional construction costs for some builders. Can you provide details on how that estimate was developed?

NAHB's cost estimates for the 2021 IECC are based on detailed analysis by Home Innovation Research Labs (HIRL), NAHB's independent research affiliate. Using RSMeans¹ and other publicly available material and labor cost data, HIRL calculated the incremental construction costs for an average 2,400-square-foot single-family home required to comply with the 2021 IECC. These costs were benchmarked against both the 2009 and 2018 editions of the code.

¹ RSMeans, Construction Cost Estimating Software, <https://www.rsmeans.com/>

HIRL's analysis found that costs vary depending on climate zone, local construction practices, and the compliance pathway chosen, ranging from roughly \$9,600 to \$21,400 compared to the 2009 IECC baseline. In Climate Zone 4, which includes markets like Kansas City, the estimated increase was up to \$21,400. Importantly, HIRL's estimates assume a lower-cost compliance path and therefore represent a conservative baseline rather than the upper range of possible costs. The analysis uses transparent, traceable cost documentation and is aligned with the same RSMeans data sources relied upon by the ASHRAE 90.1 development committee.

In practice, however, builders in Kansas City have experienced substantially higher costs, around \$31,000, to comply with the unamended 2021 IECC. These real-world figures come from the Home Builders Association of Greater Kansas City, which collected input from local builders to calculate the price impact based on regional construction practices and local market conditions.

Several factors explain why these numbers exceed HIRL's estimates, but most notably, many Kansas City builders rely on a "double-wall" construction method to achieve the 2021 IECC's insulation and air sealing requirements. This approach is more expensive than HIRL's modeled compliance path but is preferred by local builders because it better accommodates regional building practices, trades, and climatic conditions. The double-wall design provides a reliable way to meet insulation targets without the durability and moisture-management risks sometimes associated with continuous exterior foam insulation. High-performance builders recognized under programs like ENERGY STAR and DOE's Zero Energy Ready Homes have used this design for years because it integrates well with other systems and minimizes long-term maintenance risks.

The Department of Energy's cost estimates are significantly lower than those produced by HIRL because they are based on a 15-year-old study that does not reflect current material and labor costs. DOE's underlying data are not transparent or publicly traceable, making them difficult to verify or replicate. In addition, DOE's methodology omits key business expenses—such as contractor overhead, profit, and other indirect costs, that are included in HIRL's accounting to reflect the true price impact on consumers. Even more telling, a more recent DOE-sponsored analysis by the Pacific Northwest National Laboratory (PNNL) found higher exterior insulation costs than those reported in DOE's own code evaluations, further confirming that DOE's assumptions understate the real-world costs of compliance.

HIRL's estimate of \$21,400 represents a data-driven calculation of the typical costs to comply with the 2021 IECC, while the Kansas City builders' \$31,000 estimate reflects local market realities and practical design choices, such as the use of double-wall assemblies. By contrast, DOE's lower cost figures are derived from outdated and incomplete data that fail to capture the full range of real-world construction expenses. Together, these findings demonstrate the clear difference between modeled assumptions and field experience, underscoring how the 2021 IECC can significantly affect housing affordability across different markets.

The Honorable Randy Weber (R-TX)

1. How important are cost-effective, fuel-neutral energy codes?

Cost-effective, fuel-neutral energy codes are essential to maintaining housing affordability and protecting consumer choice at a time when most Americans are already priced out of a new home. According to NAHB's 2025 *Priced-Out* study, nearly 75% of U.S. households, about 100.6 million families, cannot afford a median-priced new home, which now exceeds \$459,000. Even a modest \$1,000 increase in the price of a home would push an additional 115,000 households beyond their ability to qualify for a mortgage. When housing affordability is this fragile, energy policies that unnecessarily raise construction or operating costs can have widespread, real-world consequences. Fuel-neutral codes—those that do not favor one energy source over another—help ensure that energy efficiency goals are achieved without limiting consumer options or increasing costs.

Mandates that restrict or ban the use of natural gas in new homes, for example, eliminate a cost-effective and reliable energy source for many families. In colder climates, requiring full electrification can add more than \$15,000 to the cost of a new home due to the need for specialized cold-climate heat pumps and upgraded electrical systems. Families also face higher utility bills; households relying on electricity for heating spend, on average, about 40% more than those using natural gas.

Cost-effective, fuel-neutral codes also preserve flexibility for state and local governments. Climate zones, housing markets, and construction methods vary dramatically across the country, and local officials are best positioned to determine what code provisions make sense for their residents. When federal policies or grant programs require adoption of a single, unamended energy code, such as the 2021 IECC, they remove this flexibility, drive up costs, and make it harder for jurisdictions to adopt energy standards that balance efficiency and affordability.

Finally, ensuring energy codes remain cost-effective is vital to addressing the broader affordability crisis. A 2021 IECC compliance cost of even \$10,000 can price more than 1.1 million households out of a new home, according to NAHB's priced-out model. In contrast, codes that allow multiple compliance paths and energy choices enable builders to design homes that meet local needs and family budgets while still achieving meaningful energy savings.

2. How do energy codes impact housing affordability?

Energy codes have a direct and measurable impact on housing affordability because they influence cost of construction. When energy codes are written or implemented without regard to cost-effectiveness, they can add tens of thousands of dollars to the price of a new home—costs that are immediately passed on to buyers.

For example, analysis by Home Innovation Research Labs shows that compliance with the 2021 International Energy Conservation Code (IECC) adds between \$9,600 and \$21,400 to the cost of a typical new home, depending on the climate zone, and can exceed \$31,000 in certain markets such as Kansas City. These higher costs result from new insulation, air-sealing, and mechanical system requirements that offer only marginal efficiency gains for already efficient new homes. For many

households, the energy savings do not offset the higher monthly mortgage payment—one Kansas City analysis found an additional \$12,000 in construction costs yielded only about \$125 a year in energy savings.

NAHB's 2025 *Priced-Out* study underscores how even modest cost increases have significant ripple effects on affordability. A \$1,000 increase in the price of a new home prices out roughly 115,000 households nationwide from being able to qualify for a mortgage. With nearly 75% of households already unable to afford a median-priced new home, every added dollar—especially from regulatory mandates—matters.

Energy codes that are fuel-neutral and cost-effective help strike the right balance by improving efficiency without pricing families out of homeownership. However, when codes or related policies push for fuel-specific outcomes, such as natural gas bans or electrification mandates, the affordability impacts intensify. In colder climates, switching to all-electric systems can add \$15,000 or more to the cost of a new home and lead to higher monthly utility bills, since electric heating can cost up to 40% more than natural gas.

Ultimately, housing affordability depends on the ability to meet energy and environmental goals through flexibility and choice, not through prescriptive one-size-fits-all mandates. Allowing builders to select the most cost-effective compliance paths and energy systems ensures that energy codes advance efficiency while keeping homes within financial reach for American families.

If construction costs continue to rise, the dream of homeownership will move further out of reach for millions of families. Every additional requirement, fee, and mandate pushes more Americans into the ranks of those who can no longer afford to buy a home. Homeownership plays an important role in building wealth, stability, and community for working families across the country. Policies that drive up housing costs risk denying these opportunities to an entire generation of potential homeowners.

3. Why is it important for homeowners to have access to mixed-fuel homes?

Allowing homeowners to have access to mixed-fuel homes is critical for maintaining affordability, reliability, and consumer choice. Mixed-fuel homes, which use both electricity and natural gas, give families and builders the flexibility to design energy systems that best fit their local climate, available infrastructure, and budget.

From a cost standpoint, natural gas remains one of the most affordable and reliable energy sources for heating, cooking, and water heating. According to federal data, households using natural gas for heating spend about 42 percent less than those relying solely on electricity. Over the past decade, affordable American natural gas has saved residential consumers an estimated \$125 billion in energy costs. When local governments restrict or ban natural gas in new construction, families lose access to these savings and are forced to rely entirely on electricity, which can be significantly more expensive.

In colder climates, this issue is even more pronounced. Full electrification can add \$15,000 or more to the cost of a new home because of the need for specialized cold-climate heat pumps and upgraded electrical systems. These systems are not only more expensive to install but can also increase monthly utility bills since electric heating generally costs more to operate in cold weather. For families already struggling to afford a new home, those added expenses can make homeownership impossible.

Mixed-fuel homes also improve energy reliability. During severe weather events or grid disruptions, the ability to use multiple energy sources ensures that families can maintain heat, cooking, and other essential functions. This flexibility is especially important in regions where electric infrastructure is limited or where extreme temperatures strain the power grid.

Preserving access to mixed-fuel homes protects affordability, ensures reliability, and upholds consumer choice. It allows homeowners to use the most practical and cost-effective energy sources for their region, achieving efficiency goals without imposing unnecessary costs or limiting access to affordable energy.

The Honorable Rick Allen (R-GA)

- 1. Housing affordability is an issue for too many Americans, and we must focus on policies that expand housing accessibility. Do policy objectives included in recent International Energy Conservation Codes, like fuel switching, EV chargers, and forced electrification, help expand or restrict access to housing?**

Policies that mandate fuel switching, require electric vehicle chargers, or promote forced electrification do not expand access to housing. Instead, they make new homes more expensive to build, create additional regulatory hurdles, and restrict the ability of families to choose the features that best fit their needs. These policies add layers of red tape that slow down housing production, increase compliance costs, and divert resources away from efforts that would meaningfully improve affordability. Beyond cost, these mandates impose new layers of complexity and permitting delays. Builders must navigate additional design, inspection, and equipment requirements, all of which slow down the pace of construction.

Electrification requirements also restrict consumer choice. Families deserve the freedom to decide which appliances, heating systems, and features best serve their household. For many, that includes having access to mixed-fuel homes that provide flexibility, reliability, and lower energy costs. Policies that remove these options not only raise costs but also limit the ability of homeowners to design homes that meet their family's needs.

Energy code provisions that prioritize policy objectives like electrification or EV mandates over cost-effectiveness and flexibility ultimately restrict access to housing. To expand housing affordability, energy codes must remain focused on achievable, cost-effective efficiency improvements that enhance comfort and performance without increasing regulatory barriers or removing consumer choice.

The Honorable Julie Fedorchak (R-ND)

1. The last several building code updates developed by the International Code Council (ICC) have clearly prioritized a “green” agenda over cost-efficient home construction. The Department of Veterans Affairs (VA) and the U.S. Department of Agriculture (USDA) have already adopted these latest ICC energy code standards for the homes they finance, effectively imposing the 2021 International Energy Conservation Code (IECC) on those federally backed loans.

- a. In your view, what would be the effect on the U.S. housing market if Fannie Mae and Freddie Mac were to adopt these standards?**

If Fannie Mae and Freddie Mac were to adopt the 2021 International Energy Conservation Code (IECC) as a condition for financing for new construction housing, it would effectively create a national energy code for housing. Because Fannie Mae, Freddie Mac, HUD, and USDA collectively back or insure the vast majority of mortgages for new single-family construction, builders and buyers would have little choice but to comply. This would have major implications for housing affordability, production, and consumer choice.

The 2021 IECC adds between \$9,600 and \$21,400 to the cost of constructing a typical new home, and in some markets, such as Kansas City, the additional cost can exceed \$31,000. If these standards were applied across all federally backed mortgages, millions of potential buyers would be priced out of the market. According to NAHB’s *Priced-Out* study, every \$1,000 increase in the price of a new home prevents about 115,000 households from qualifying for a mortgage. Even modest cost increases from federal energy mandates would therefore have an outsized impact on access to homeownership.

Beyond the direct price increases, a national mandate would create new layers of federal red tape that slow down the pace of housing production. Builders would likely face additional inspection, documentation, and certification requirements, increasing both administrative and compliance costs. These barriers would make it harder to deliver homes efficiently at a time when the nation already faces a severe housing supply shortage.

Overall, having Fannie Mae and Freddie Mac adopt these standards would extend the reach of the 2021 IECC nationwide, raising home prices, reducing supply, and limiting options for consumers. This approach would make it harder, not easier, for Americans to achieve affordable homeownership.

- 2. You pointed out that in colder climates like New York—and North Dakota is much colder than New York—a full electrification mandate for new homes could add over \$15,000 in upfront costs. At today’s rates, that would add \$95 to your mortgage payment and \$34,000 in life-cycle costs.**

- a. With home ownership becoming a distant possibility for younger generations, is it reasonable for government to impose such costly electrification on every homebuyer?**

It is not reasonable for government to impose costly electrification mandates on every new homebuyer, especially when data show how quickly even modest cost increases push families out of

the market. According to NAHB's 2025 *Priced-Out Study*, nearly 75% of U.S. households cannot afford a median-priced new home, and every \$1,000 increase in home price disqualifies about 115,000 additional households from qualifying for a mortgage. Electrification mandates that add more in upfront costs—especially in colder climates where costly cold-climate heat pumps and electrical upgrades are required—would prevent thousands of households from buying a new home.

These added costs also limit consumer choice. Families should have the freedom to choose the energy systems and appliances that best serve their needs. Natural gas remains one of the most reliable and affordable energy sources for home heating, cooking, and water heating, providing critical resilience during winter storms when electricity reliability can falter. Removing access to gas not only increases monthly energy bills but also puts homeowners at greater risk during power outages.

For many Americans, the choice of energy source can be the difference between owning or renting. Policies that force all-electric construction ignore regional climates and market conditions, restrict consumer options, and worsen the affordability crisis. Keeping energy codes fuel-neutral ensures that families can select the most practical, reliable, and affordable energy solutions for their homes, helping preserve both housing accessibility and energy security.

In your testimony, you gave an example of a builder in Kansas City who found that complying with the 2021 IECC energy code added over \$12,000 in construction cost but only saved about \$125 per year in energy bills.

a. How do regulators justify disparities like this?

Regulators often justify these disparities by focusing on long-term, theoretical energy savings rather than the real-world costs that builders and homebuyers face upfront. Many federal analyses assume energy savings will accrue over decades and eventually offset higher construction costs, but those projections are based on outdated or incomplete cost data that underestimate today's labor, material, and compliance expenses. This approach overlooks a fundamental reality of the housing market: it does not matter if families might save money over time if they cannot afford to buy the home in the first place. When upfront costs rise beyond what a family can finance, those long-term savings become meaningless because the opportunity to become a homeowner is lost entirely.

In the Kansas City example, builders reported an additional \$12,000 in construction costs to comply with the unamended 2021 IECC but only about \$125 in annual energy savings. Those numbers highlight the disconnect between federal assumptions and on-the-ground experience. Regulators often overlook the fact that most homeowners will move long before they ever recoup those costs, meaning the investment rarely pays off for the family buying the home.

b. Does this approach risk harming housing affordability more than it helps the environment?

Yes. When code requirements and federal policies add significant upfront costs for only marginal energy savings, they do far more harm to housing affordability than good for the environment. The

2021 IECC represents diminishing returns, targeting new homes that are already built to modern, efficient standards. The greatest potential for improving energy performance lies in the existing housing stock, more than 130 million homes built before modern energy codes took effect, not in burdening the small share of new homes built each year with costly new mandates.

c. From your perspective as a home builder, why is it so important that we keep affordability front and center in energy policy debates?

From a builder's standpoint, affordability has to come first in any energy policy, because the benefits of efficiency mean little if families are unable to afford the home. When policies prioritize prescriptive energy goals over cost-effectiveness, they push millions of families out of the market and deepen the nation's housing crisis. Builders across the country are already contending with rising material costs, labor shortages, and regulatory delays. Adding expensive, one-size-fits-all energy mandates compounds those challenges and limits the industry's ability to meet growing housing demand.

Keeping affordability front and center ensures that energy policy remains balanced, practical, and fair. Cost-effective, fuel-neutral energy codes allow builders to incorporate meaningful efficiency measures while still delivering homes that are within financial reach. By focusing on affordability, flexibility, and consumer choice, policymakers can promote both environmental progress and access to the American dream of homeownership.