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EXECUTIVE DIRECTOR
SUNIA ZATERMAN

February 28, 2025

RE: [Docket No. FR-6505-N-01] Request for Information Regarding Resilience Measures and Insurance Coverage

Dear Mr. Richardson,

The Council of Large Public Housing Authorities ("CLPHA") appreciates the opportunity to submit comments to the United States Department of Housing and Urban Development ("HUD") in response to the notice titled "Request for Information Regarding Resilience Measures and Insurance Coverage."

CLPHA is a non-profit organization that works to preserve and improve public and affordable housing through advocacy, research, policy analysis, and public education. Our membership of more than eighty large public housing authorities ("PHAs") own and manage nearly half of the units in the nation's public housing program, administer more than a quarter of the subsidies in the Housing Choice Voucher Program, and operate a wide array of other housing programs. CLPHA supports the nation's largest and most innovative PHAs that own and manage housing and vouchers for nearly 3.3 million households by advocating for the resources they need to solve local housing challenges.

Background

CLPHA and our member PHAs recognize the importance of modifying existing properties and building new properties to enhance resiliency against natural hazards can yield long-term cost savings, prevent casualty losses, and reduce repair costs. Many CLPHA members are currently engaged in efforts to revitalize public housing properties, including units converted to project-based Section 8 programs through the Rental Assistance Demonstration (RAD) and through other HUD asset repositioning tools.

Insurance premiums are rising rapidly for affordable housing providers nationwide. For 2022-23 policy renewals, 29% of housing providers experienced premium increases of 25% or more compared to 17% in the prior year. Over 93% of housing providers indicated that they would take action to mitigate cost increases due to higher insurance premiums.[1]

Despite these challenges, our members recognize they have a responsibility to mitigate risks for residents who may not have the resources to recover on their own. Many low-income residents lack renters' insurance, meaning they lose everything in a fire, flood, or disaster. By implementing resiliency upgrades, our members help protect vulnerable tenants from life-altering financial losses. Safer, more durable housing reduces displacement after disasters, ensuring residents can remain in their communities.

[1] NDP NLHA Housing Provider Insurance Costs Report October 2023

It is shown that investing in resiliency is financially beneficial in the long term. However, more resilient construction methods are financially unattainable up-front, and affordable construction methods lead to higher insurance costs. Plus, the impact of resiliency modifications on insurance premiums remains limited due to prevailing insurer risk classifications. CLPHA supports federal and state incentives that would assist affordable housing developers to finance and implement pre-disaster resilience improvements without inadvertently increasing insurance costs.

Financial Savings from Modifying Existing Housing to Mitigate Damage from Natural Hazards

Response to question 1: What are the financial savings (e.g., insurance premiums or avoided casualty loss) and other benefits associated with modifications to existing single-family or multifamily properties, including public housing, to mitigate damage from natural hazards or increase resilience in the event of a natural hazard? How do these savings compare to the costs associated with those modifications? Please list modifications and each of their damage mitigation benefits as well as financial and time costs. Distinguish by peril type (earthquake, hurricane, floods, hail, drought, wildfire, extreme heat, landslide, etc.) or geography as appropriate, as well as by building and construction type.

Financially, resilience modifications can result in significant long-term savings by reducing the need for expensive post-disaster repairs. A study from the National Institute of Building Sciences found that for every $1 spent on mitigation, approximately $6 is saved in future damages.[2] However, these savings are only realized in the event of a disaster, whereas insurance premiums remain an ongoing and immediate financial burden. Without changes to insurance pricing models or additional funding to offset the cost of resilience upgrades, the industry faces difficulties justifying these investments given the lack of immediate financial return and securing financing for these investments.

Weatherization upgrades can prevent unforeseen casualty losses, but the up-front costs of such upgrades are not always financially feasible, nor are the costs of these investments always reflected in insurance premiums. For instance, measures as simple as checking pressure relief valves for dry sprinkler systems prior to adverse weather conditions, can prevent unforeseen casualty losses that can range from $200,000 into the millions. Features such as reinforced foundations, flood barriers, and impact-resistant materials can be seamlessly integrated without disrupting residents or requiring costly future upgrades. Additionally, weatherizing the roof and attic spaces to improve the R-value (a measurement of how well insulation resists heat flow) can reduce the risk of sprinkler lines bursting in attics, while also increasing insulation and thermal comfort for residents on the top floor. While these measures can reduce long-term operating costs for heating and cooling, they can be costly up-front and create a maintenance standard, which can neutralize any cost-savings that may be realized unless these measures are factored into lower insurance premiums.

Although the upfront costs for modifications (e.g., elevating structures, retrofitting) can be significant, they are generally outweighed by the long-term savings from reduced damage and insurance costs. Benefit-cost ratios (BCRs) vary across the country with the degree of vulnerability to different hazards, but generally, modifications are shown to be cost-beneficial. The BCR for exceeding existing code provisions varies from 7:1 for

[2] Mitigation Saves | National Institute of Building Sciences

hurricane surge ($7 benefit for every $1 invested), to 4:1 for earthquake and wildland-urban interface fire mitigation ($4 benefit for every $1 invested). For the impact of federal grants, the benefit-cost ratio ranges from 7:1 for riverine floods to 3:1 for earthquakes and wildland-urban interface fire mitigation. It is well-understood that resilience investments such as fire-resistant materials, reinforced roofing, and flood-resistant infrastructure can significantly mitigate potential damage.

However, these improvements do not always translate into immediate reductions in insurance premiums. Many insurers base their pricing on construction type rather than specific risk mitigation measures, which presents a challenge for properties classified under ISO's wood-frame construction category. As a result, even when PHAs undertake substantial upgrades to improve resilience, the insured total value (ITV) of these properties increases, leading to higher premiums instead of cost reductions. Insurers should adjust their risk assessment models to account for resilience modifications within existing wood-frame structures.

Impacts of BABA on resiliency modifications to existing properties

Build America, Buy America (BABA) requirements are increasing building costs, slowing the process of adding resiliency measures to existing housing pre-disaster, and reducing the number of homes that can be upgraded with limited available funding. The exigent circumstances BABA waiver would not apply to pre-disaster funding PHAs use for resiliency upgrades. BABA is also disincentivizing contractors from bidding on projects and leading to delays: A survey of construction contractor firms found that 86% of firms experienced delays due to longer lead times/shortage of materials and 68% of firms experienced delivery delays, including BABA-compliant materials.[3] Over one-third of housing providers experienced serious shortages of windows and home doors, while more than a fifth reported serious shortages of HVAC equipment and appliances. Such delays drive up financing costs and risk the availability of labor to complete a project, which is exacerbated by the scarcity of domestic products. These issues will reduce any savings PHAs can realize from pre-disaster resiliency investments, and the exigent circumstances waiver cannot apply to pre-disaster expenses, so financial support is needed.

Financial Savings from Building New Construction with Resilient Features to Mitigate Damage from Natural Hazards

Response to question 2: What are the financial savings (e.g., insurance premiums or avoided casualty loss) and other benefits associated with building new construction properties with building and design features that mitigate damage from natural hazards or increase resilience in the event of a natural hazard? How do these savings compare to the costs associated with those features? Please list building and design features and each of their damage mitigation benefits as well as financial and time costs. Distinguish by peril type (earthquake, hurricane, floods, hail, drought, wildfire, extreme heat, landslide, etc.) or geography as appropriate, as well as by building and construction type.

Incorporating resilient building and design features in new construction provides a clear long term financial advantage, and new buildings designed with resiliency features can qualify for lower insurance costs than standard construction. The National Institute of Building Science estimates that using up-to-date building codes can save $11 for every $1

[3] 2022 Workforce Survey Results | Associated General Contractors of America

invested (a BCR of 11:1).[4] Incorporating flood-resistant materials, seismic reinforcements, and wind-resistant designs reduce long-term maintenance and repair expenses, leading to avoided repair and reconstruction costs. Properties built with resiliency in mind recover faster after disasters, reducing revenue loss of nearby businesses from displaced tenants and facilitating quicker recovery for the local economy. Finally, resilience features like high-performance insulation, passive cooling, and solar panels lower operating costs and result in energy efficiency savings. Investing in resilient affordable housing ensures that low-income communities are not disproportionately affected by natural disasters.

However, insurance premiums are significantly influenced by construction type, and the upfront costs of building with resiliency are often prohibitive in the constrained funding environment which PHAs operate in. Building costs for non-combustible materials (such as steel rather than wood) remain prohibitively high for housing developers. Wood-frame buildings are generally classified as high-risk, limiting access to competitive insurance rates. If PHAs can construct new developments using steel or other non-combustible materials, insurance costs would be reduced significantly. Despite these potential savings, the cost of steel-frame construction is approximately 10-20% higher than that of wood-frame construction, which makes it financially unfeasible without additional funding support. While insurers offer better rates for non-combustible construction, they have yet to develop pricing models that adequately recognize resilience improvements within wood-frame structures. This leaves PHAs in a difficult position where **affordable construction methods lead to higher insurance costs, while more resilient construction methods are financially unattainable**.

Still, there are numerous advantages to building resilient new construction. Even though it generally makes projects more costly, building resilience into new construction is significantly cheaper than retrofitting later. A FEMA study found that if all future construction were built to the latest edition of the International Codes (I-Codes), communities could avoid over $600 billion in cumulative losses from disasters by 2060.[5] Resilient buildings reduce strain on emergency response systems, minimizing public costs for disaster recovery. Advanced sensor systems, such as real-time flood detection, automated HVAC controls, and emergency backup power, can enhance resilience while reducing energy and maintenance costs. Smart grids and microgrids can keep power running during outages, ensuring residents remain safe during extreme weather.

Financial savings from building new construction with resilient features also tend to vary based on region and the types of risks that exist in each region. In hurricane-prone areas, building homes elevated by up to 10 feet above base flood elevation can yield savings exceeding $12 for every dollar spent on additional construction costs. Building along the Gulf and Atlantic coasts to comply with IBHS FORTIFIED Home requirements would cost $720 million, but save $3.8 billion per year, with some benefit-cost ratios over 16:1.[6] In North Carolina for example, buildings designed to IBHS FORTIFIED Home hurricane standards can be cost-effective at the bronze level (3) for the central and eastern part of

[4] Four Steps to Using Building Codes to Mitigate the Impact of Disasters | ICC
[5] Protecting Communities and Saving Money: The Case for Adopting Building Codes | FEMA
[6] Mitigation Saves | National Institute of Building Sciences

North Carolina, and at the silver (4) level for coastal counties. Meanwhile, many of our PHAs on the west coast face primary threats from wildfires, earthquakes, sub-freezing temperatures, and severe winds. New construction designed to exceed the 2015 I-Codes for earthquakes had a benefit-cost ratio of 4:1, meaning an average of $4 saved for every $1 spent to build new housing stronger and stiffer. Yet as natural hazards have become increasingly severe and more frequent in recent years, premiums have skyrocketed and have caused some insurers to pull out of markets altogether.

Time and Costs of Post-Disaster Rebuilding for Resiliency versus Waiving Requirements

Response to Question 3: What data exist around the additional time or financial costs, if any, of rebuilding to or above code post-disaster instead of waiving requirements? Is there information on the longer-term costs (e.g., financial or damage-related) related to waiving building requirements when rebuilding post-disaster?

Post-disaster rebuilding following modern building codes is critical to long-term resilience, yet it introduces significant financial and logistical challenges. It is recognized that while upgrading to modern standards can increase costs by approximately 20-30%, failing to do so often results in higher long-term damage risks and escalating insurance costs. Current building codes rely on historical data and do not account for climate change-driven disasters and increased seismic activity. Extreme weather events are surpassing records, meaning new buildings constructed only to current code may still be vulnerable, particularly in earthquake-prone areas like Cascadia and the west coast.

The challenge lies in the trade-off between immediate reconstruction costs and long-term financial sustainability. If a disaster damages one of the wood-frame buildings, rebuilding under current insurance and funding conditions presents two difficult options. Developers can either rebuild quickly at lower standards, perpetuating high insurance costs and future vulnerabilities, or invest in non-combustible materials that could lower long-term insurance costs but are financially unattainable without external assistance. Given these constraints, CLPHA supports policies prioritizing funding for resilience-based rebuilding. Disaster recovery programs should be structured to ensure affordable housing developers receive financial assistance for rebuilding to higher standards, rather than being forced to default to outdated, high-risk structures due to cost limitations.

State and Local Cost-Reduction Measures

Response to question 4: Are there local or state statutes, regulations, or incentives that help property owners reduce costs or save on expenses, including insurance costs, when they invest in resilience (e.g., reduced insurance premiums, tax abatements, subsidies/discounts)? If possible, please provide data on how successful these measures have been in saving on expenses.

There are various capital improvement grants at the federal, state, and local levels that provide financial assistance for property improvements. However, these programs do not mandate insurers to offer lower premiums in response to such improvements. Even when developers invest in fire-resistant roofing, flood barriers, and drainage improvements, insurance providers continue to price policies based on things like construction type and ITV rather than resilience measures.

Many states operate disaster resiliency and assistance programs. The ReOregon Program, which was initially created to assist communities in recovering from the 2020 wildfires,

offers financial aid for housing reconstruction, infrastructure repair, and economic revitalization, emphasizing resilience against future disasters.[7] Oregon and California both provide resources and guidance on disaster preparedness and resilience, including assistance programs for Public Entities affected by disasters.[8] [9]

Clark County, Washington has a weatherization assistance program that offers financial assistance for certain indoor air quality and energy efficiency improvements. It has limits on the number of units for multifamily properties, and it offers a set dollar amount to do improvements such as increased attic insulation, better ventilation to prevent moisture build-up, and connecting bathroom/dryer vents to exterior ports (reducing moisture and potential mold) in attic spaces.[10] Some jurisdictions, like Chaffee County in Colorado, utilize voter-backed sales taxes to fund resilience initiatives. This approach allows communities to finance risk management plans effectively.[11]

The establishment of local resilience authorities, such as the Resilience Authority of Annapolis and Anne Arundel County in Maryland, enables communities to finance and manage resilience projects collaboratively. These authorities have successfully secured significant funding for climate infrastructure projects.[12]

Industry Resiliency Standards

Response to question 5: Please identify any industry standards related to resilience that you have used or referenced in your work. If possible, please document where the standard has been applied, at what scale, and to what effect.

The California Building Codes (Title 24) set standards for seismic safety, fire protection, and structural integrity, ensuring resilience against natural hazards such as earthquakes and wildfires. As governments and insurers are likely to introduce stricter codes in the coming years, California's codes are seen as a model for such resiliency standards. Our many PHA members in California are subject to California's Building Code.

The International Codes (I-Codes) have provisions for building sustainability measures and resiliency systems. Hurricane-related aspects of the 2018 I-Codes save $5.6 billion in the long term for every year of new buildings built to the code, at a cost of $540 million, producing a benefit-cost ratio of 10:1. The Insurance Institute for Business and Home Safety's (IBHS) FORTIFIED Home Hurricane standards are another well-known industry standard. Applying the IBHS standards where they would be most cost effective would cost $24 billion, but save society $141 billion in the long run (a benefit-cost ratio of 6:1). Several of our PHAs have built properties that meet or exceed both the I-Codes, and the IBHS FORTIFIED standards.

GreenPoint Rated projects are buildings that meet environmental standards and are certified by a GreenPoint Rater. The certification is based on a point system that considers

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[7] About ReOregon | Oregon Housing and Community Services
[8] Public Assistance Program | Oregon Department of Emergency Management
[9] California Disaster Assistance | California Governor's Office of Emergency Services
[10] Weatherization Assistance | Clark County
[11] State & Local Governments use Innovative Financing to Build Disaster Resilience | Pew Charitable Trusts
[12] Resilience Authority of Annapolis and Anne Arundel County

energy efficiency, water conservation, and other factors. There are over 67,370+ GreenPoint Rated multifamily homes across 4 states, and GreenPoint Rated homes are at least 10% more energy efficient than standard built homes.[13]

Safe rooms are hardened structures designed to meet specific wind loading criteria and provide near-absolute protection in extreme weather events, including tornadoes and hurricanes. Industry standards for safe rooms include the ICC 500 standard and FEMA P-320 standard. Safe rooms can be retrofitted into existing housing or incorporated in new construction projects.

The SSTD 10-99 Hurricane Resistant Construction Standard provides guidelines on how to improve the structural performance of a building in the event of high-wind conditions. These updates can be done by strengthening three important areas: roof and wall construction coverings, openings such as windows, doors, and load path connections.[14]

Outreach Efforts to Educate Housing Providers on the Benefits of Resiliency

Response to question 6: Are there local, state, or regional outreach or education efforts that have been successful in helping homeowners and housing providers understand the direct and indirect benefits of investing in resilience measures?

While various outreach and education programs exist to promote housing resilience, their effectiveness in securing insurance cost reductions has been limited. FEMA and HUD offer technical guidance on resilience measures, but not all insurers have formally incorporated these recommendations into their risk models. There should be insurer-backed outreach programs that would provide property owners with transparent guidance on how specific resilience investments impact risk modeling and insurance pricing.

Useful Data for Insurers

Response to question 7: What data would be useful for insurers (including risk pools) and reinsurers on efforts to mitigate damage from natural hazards or increase resilience to natural hazards, such as housing elevations, home resilience upgrades, and infrastructure improvements?

It is recognized that insurers require robust risk assessment data to justify lower premiums for resilience investments. Data on property locations relative to flood zones, fault lines, wildfire-prone areas, and other hazard indicators will allow insurers to conduct location-specific risk assessments. Historical loss data, including records of past claims and damages associated with natural hazards in specific areas, can also be useful.

Historical and predictive data on weather events that could impact property risk profiles could also be factored into insurers' calculations. Insurers could also utilize predictive climate models to assess future climate risks and their potential impact on properties, while providing discounts to PHAs that invest in preemptive resiliency and build above code. Insurers should stay actively engaged with local agencies specializing in climate

[13] GreenPoint Rated Multifamily | GreenPoint Rated
[14] SSTD 10-99 Hurricane Resistant Construction Standard

research, incorporating their projections, insights, and recommendations into resilience planning.

However, a key issue remains the way insurers classify affordable housing under ISO rating systems. Unlike homeowners' policies, insurance classifications for large properties like multi-family apartment complexes or commercial properties do not account for location-based risk reductions, such as a property's distance from a forested area or adherence to localized fire mitigation strategies. This disparity presents an opportunity to advocate for the reform of ISO classification criteria for affordable housing. By refining these rating methodologies, insurers could develop more precise risk assessments that recognize site-specific resilience measures rather than applying blanket classifications.

Additionally, insurers require long-term claims data that demonstrates the financial benefits of resilience measures in wood-frame buildings. Federal initiatives should be in place to collect and analyze this data, ensuring that insurance pricing accurately reflects the risk mitigation efforts undertaken by affordable housing developers.

Conclusion

To address these issues, policymakers should allocate funding that enables the construction of non-combustible resilient affordable housing, require insurers to offer premium reductions for resilience investments, and refine ISO classification and ITV methodologies to reflect modern risk mitigation strategies. By implementing these reforms, affordable housing developers can reduce long-term costs, enhance the resilience of their properties, and ensure that insurance pricing structures incentivize rather than penalize responsible investment in risk reduction.

Thank you for the opportunity to comment on how resiliency affects insurance costs. We look forward to a continuing dialogue with HUD on insurance and resiliency.

Sincerely,

Sunia Zaterman
Executive Director
Council of Large Public Housing Authorities