



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

Comments due October 27, 2022

Response to: Green and Resilient Retrofit Program: Request for Information

[Docket No. FR-6350-N-01](#)

The BlueGreen Alliance (BGA) unites labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that Americans don't have to choose between a good job and a clean environment—we can and must have both. We are excited to offer our comments on the HUD Green and Resilient Retrofit Program, which is a unique opportunity for holistic building retrofits to address energy and water efficiency, health and climate resilience and to benefit disadvantaged communities with improved affordable housing and through quality job creation. In particular, this program is an opportunity to support implementation of BGA's Priority #1 in our 2022 Solidarity for Racial Equity platform: "Fund Holistic Upgrades for Schools and Housing for Black, Indigenous, and People of Color and Other Disadvantaged Communities to Create Efficient, Healthy, Accessible, and Climate Resilient Buildings." Below are our responses to specific questions as well as additional considerations.

1. HUD is seeking input on program design features, energy-saving measures, low-emission technology, and resilience design and measures that have proven effective in affordable multifamily buildings. How might this program help prioritize and scale best practices for reducing energy consumption and carbon emissions, improving indoor air quality for residents, and strengthening climate resilience among affordable multifamily buildings? How can these measures and practices be deployed in a way that preserves affordability of our properties?

Promote healthy building materials

Potentially harmful chemicals can be embedded in building materials commonly used in weatherization and retrofits. BuildingClean.org is a database to help identify healthier building materials and minimize exposure of harmful chemicals to both installers and occupants.ⁱⁱ Below are BuildingClean criteria that can be used to guide the procurement of healthy building materials by HUD applicants.

We recommend that HUD: Promote the use of healthier building materials for all construction projects used with federal funding by incentivizing applications that minimize exposure to harmful building materials:

- Provide guidance on minimizing exposure to harmful chemicals by using the following Building Clean criteria:
 - Good: Interior building products with the potential to emit volatile organic compounds should have a low-VOC emissions certification;
 - Better: Utilize third-party product certifications and labels to select products that limit some of the most hazardous content; and
 - Best: Utilize third-party product certifications and labels to select products that are free of the most hazardous content.
- Include Best Practices in Program Guidance:
 - Discourage the use of insulation materials containing respiratory sensitizers, specifically two-part spray polyurethane foam insulation which is linked to debilitating respiratory diseases,ⁱⁱⁱ and
 - Discourage the use of funds for recycled vinyl flooring or wall-coverings which may contain a number of legacy toxics, including lead.^{iv}

Promote low-emission building materials and processes

- Reduce buildings' embodied carbon with low-carbon and carbon-storing materials, which could include^v
 - Utilization of bio-based materials such as FSC certified mass timber and cross-laminated timber (CLT)
 - Utilization of mineral-based low-carbon materials such as emerging concrete products and concrete utilizing carbon capture and storage (CCS) technology
- Action to reduce emissions in structural building materials is essential to meeting the administration's goal of net-zero emissions economy wide by 2050 and realizing the intent of the Buy Clean Task Force to leverage federal procurement to drive market transformation. HUD must utilize its purchasing power and influence to transform the market for building materials and make low-embodied carbon materials more accessible:

- Deploy funding allocated in a manner that is focused on delivering measurable embodied emissions reductions for the construction materials procured for HUD projects.
- Prioritize the clean procurement of materials identified by the Buy Clean Task Force, including, steel, concrete, asphalt, and flat glass
- Develop programs and tools (such as Environmental Product Declarations and Health Product Declarations), along with other federal departments and agencies such as the Environmental Protection Agency, to identify, track, and report on low-embodied carbon materials

Address climate resilience

As the risks from global climate change intensify, the consequences for our environment and communities will also intensify. Investing in resilience now can support at-risk workers and communities while also producing savings in the long term in risk reduction from floods, wildfires, and other hazards. It is estimated that for every \$1 spent on risk reduction activities, the United States saves \$6 in disaster costs, producing large savings for tax payers and policy makers in the long term.^{vi} This is particularly important given the already severe shortage of affordable housing units available and/or in good condition.

With regard to affordable housing, climate resilience can take the form of buildings that maintain healthy temperatures even during a power outage that lasts several days. Given that residents of affordable housing are often vulnerable populations such as the elderly, disabled, or those with underlying health conditions, this type of upgrade can be life-saving during a frigid winter or blazing hot summer. This type of resilient retrofit called “passive survivability” would also significantly improve energy efficiency resulting in lower energy bills for low-income residents.

Retrofits should also prioritize keeping those in affordable housing safe and secure during extreme weather events. Building off the successes of FEMA’s effort to weatherize the Nicklaus Children’s Hospital in Miami, FL, the installation of impact-resistant windows will help protect residents of affordable housing from high velocity wind and powerful storms.^{vii} These retrofits can not only help fortify physical

structures against climate change, but make meaningful improvements for the safety of residents.

Given the expertise of FEMA staff working on Hazard Mitigation grants and the Building Resilient Infrastructure and Communities (BRIC) program for climate resilience in buildings, there is opportunity for HUD to collaborate across agencies to ensure best practices for climate resilience in affordable housing. **4. HUD seeks to design this program to enable deep retrofits of multifamily properties –retrofits that would likely not be possible without this funding. Certain markets are more primed to deploy deep and resilient retrofits in the multifamily sector, while others may lack the state and local infrastructure and workforce for delivering retrofits in this sector. While HUD seeks to maximize impact, how can HUD best ensure that funding is distributed equitably?**

Support Workforce Development

Recognizing an increasing demand in the energy efficiency workforce, HUD should identify funding streams to support workforce development, particularly in the markets where there may be a labor shortage. This effort should be coordinated with the Department of Labor and the administration-wide Good Jobs Initiative. Additionally, there are opportunities for coordination with the Department of Energy/Undersecretary of Infrastructure Office, which will administer funds from the IRA to implement contractor training for residential energy efficiency.

Ensure a Qualified Workforce

Studies have shown that poor installation of energy efficiency measures often results in energy savings losses of up to 50% compared to projected savings goals.^{viii} Investing in a qualified workforce ensures that HUD and its grantees realize the full potential of its investments and residents receive the full expected benefits. Depending on the size of the project, there are applicable high-road labor standards.

Davis Bacon Prevailing Wage

Construction projects—including retrofits—that are federally funded are required to adhere to Davis Bacon prevailing wage provisions. Prevailing wage rates, which reflect local area standards, help attract skilled workers and benefit local communities

through quality job creation. HUD can ensure prevailing wage requirements are met through program guidance, grant application and reporting requirements.

Registered Apprenticeship, Pre-Apprenticeship, and Labor Management Partnerships:

One of the best methods for ensuring a high standard of training resulting in proper installation and fully realized energy savings, health benefits, and resilience is through registered apprenticeship, pre-apprenticeship, and other union-affiliated training programs. Apprenticeships are registered through a state apprenticeship agency or through the Department of Labor. Because registered apprenticeships are paid positions that combine on-the-job training with classroom instruction in a trade, they also improve access to job opportunities for disadvantaged workers. Construction unions operate robust registered apprenticeship programs while industrial unions work with employers on joint labor management training programs that also provide a combination of classroom and on-the-job skills training.

Pre-apprentice programs aim to ensure that workers can qualify for entry into an apprenticeship program and have the skills and support they need to succeed. These programs are generally designed to target certain populations or demographics such as low-income workers, workers of color, women, and other marginalized communities. Additionally, many unions offer training throughout a member's career to enable them to stay up to date with changes in technology. The most successful pre-apprenticeship programs are those affiliated with registered apprenticeships. Wraparound services such as transportation vouchers and child care also help with recruitment and retention of underrepresented and disadvantaged workers.

Project Labor Agreements (PLAs), Community Workforce Agreements (CWAs) and Community Benefit Agreements (CBAs)

High-road labor standards for larger properties, such as multifamily affordable housing, should include Project Labor Agreements (PLAs), Community Workforce Agreements (CWAs) or Community Benefit Agreements (CBAs).

PLAs promote safe, quality, cost-effective project delivery by providing project owners with unique access to the safest, most productive, best-trained skilled craft labor available in any given market. A CWA or CBA consists of a PLA that additionally reflects community input and outlines benefits for the community where the project is

happening. In addition to the collective bargaining aspects of a PLA, CWAs frequently include local hire provisions, targeted hire of low-income or disadvantaged workers, and the creation of pre-apprenticeship pathways for careers on the project.

6. What equity considerations should HUD consider when implementing property retrofits and benchmarking? HUD-assisted properties exist nationwide, and they disproportionately serve residents who are otherwise underserved by housing markets, including people with disabilities, older adults, and people from communities of color.

It is important to consider the beneficiaries of the project once complete, but also those who can benefit from the project itself. An equity lens should also be applied to workforce development for green and resilient retrofits.

We recommend that HUD support disadvantaged workers and communities by:

- Requiring or incentivizing local or targeted hire or other hiring and procurement policies that benefit low-income communities.
- Requiring or incentivizing pre-apprenticeship opportunities targeting disadvantaged communities that are linked to registered apprenticeship programs.
- Integrating pre-apprenticeships with community-based “wrap around” services to maximize retention of disadvantaged and underrepresented workers as they enter careers.
- Omitting or limiting drug testing or background checks, except for employees with access to customer premises.
- Identifying existing community networks for recruitment of disadvantaged workers.
- Track anonymized disadvantaged worker participation (recruitment, retention and advancement), in coordination with the Department of Labor.
- Encourage grant applications that include a section describing how the proposed project benefits disadvantaged communities. This may include:
 - Projected energy bill savings in disadvantaged communities;

- Projected health benefits of the project to disadvantaged communities; and/or
- Evidence of community engagement and education of proposed project.

ADDITIONAL CONSIDERATIONS:

Ensure Domestic Content

The Build America Buy America Act (BABA), passed as part of the Infrastructure Investment and Jobs Act (IIJA) on November 15, 2021, was enacted to improve our domestic supply chains and establish robust, comprehensive domestic content preferences across all federal aid infrastructure spending.^{ix}

These provisions also apply to the HUD funding from the Inflation Reduction Act (IRA) that will go towards green and resilient retrofits. For the “construction, alteration, maintenance, or repair of infrastructure in the United States,” which includes items traditionally included along with buildings and real property, 100% of iron, steel, and available manufactured products and construction materials should be produced in the United States.

Unfortunately, while Congress afforded 180 days for implementation, several federal departments and agencies are not prepared to meet the BABA requirements and instead are relying on public interest and/or general applicability waivers to delay its implementation. The Department of Housing and Urban Development released its own 6-month general applicability waiver on May 14, 2022.^x In order to comply with BABA and create unique economic opportunities, it is imperative that HUD fosters and enables BABA uptake among contractors as quickly as possible.

While we understand that implementation challenges may exist given the large investment in HUD programs from both the IIJA and IRA, we believe that HUD can use existing programs subject to Buy America laws as a guide. Manufacturers, particularly iron and steel manufacturers, already have well established supply chains to supply Buy America compliant products. We would strongly encourage HUD to build upon existing iron and steel requirements that the Department of Transportation,

Environmental Protection Agency, and Department of Agriculture have successfully implemented for many years. This will alleviate challenges for one of the categories that BABA covers and provide a pathway to accelerated implementation.

There are several other resources available to HUD and contractors to help navigate the BABA requirement, including The Made in America Office at OMB, which has developed robust resources and technical expertise to help federal contractors with BABA compliance. Additionally, the BlueGreen Alliance Foundation's (BGAF) Building Clean database identifies domestic manufacturers of products for energy efficiency retrofits and healthier building materials, primarily for single and multifamily housing. This database, BuildingClean.org, lists roughly 4,500 domestic manufacturing facilities in nearly every state across the country and also identifies facilities with union workers.

BGAF also recently commissioned a report that found that many of the building materials needed for energy efficient retrofits, especially for multifamily housing, are made in America. For example, more than 90% of air sealing, wall and attic insulation and windows and doors are made domestically, while almost 75% of heat pumps are also made in the United States. Appendix A of this document provides a summary table of the findings, which show the percent of energy efficiency products made domestically.

The benefits of Buy America laws are maximized when strong standards are set for determining a product's origin. When these laws apply to upstream inputs, they ensure that the economic benefits of government spending are accrued by an entire supply chain, not merely at the final stage of manufacturing. Weak Buy America origin standards, on the other hand, eviscerate the multiplier effect of taxpayer-financed spending, resulting in lost opportunity and forsaken economic return and fewer jobs for American workers.

Finally, for legitimate instances of availability for domestic goods and materials, or cost concerns, both non-availability and unreasonable cost waivers are available. BGA believes these are adequate to address potential issues with Buy America compliance and therefore diminishes claims of the need for a general application waiver.

BGA encourages HUD’s swift compliance with the BABA provisions and discourages any future adoption of loopholes, permissive origin standards for components, and other policies that narrow the scope of Congressional intent.

Appendix A

% of Energy Efficiency Products Made in America

		% Domestic	
Remodel Category	Subcategory	2010 Report	2022 Report
Air Sealing	Caulk/Adhesives	95.7%	94.39%
	Spray Foam	90.4%	97.21%
Attic Insulation	Fiberglass and Mineral Wool	93.7%	91.37%
Duct Sealing and Replacement	Caulk/Adhesives	95.7%	94.39%
	Duct Sheet Metal	99.4%	99.63%
Wall Insulation	Fiberglass and Mineral Wool	93.4%	91.37%
	Spray Foam	90.4%	97.21%
	Rigid Foam (Polystyrene)	95.9%	88.91%
Crawl Space Insulation	Fiberglass and Mineral Wool	93.4%	91.37%
	Spray Foam	90.4%	97.21%
	Rigid Foam (Polystyrene)	95.9%	88.91%
Fenestration	Vinyl Window & Door Frames	98.4%	93.49%
	Wood Windows & Doors	N/A	94.47%
Heating, Ventilation, and Air Conditioning	Fossil Fuel Furnace	94.2%	74.03%*
	Air/Ground Source AC and Heat Pump	82.3%	74.03%*
	Compressors	N/A	59.42%

	Water Heaters, Non-Air Heating	77.9%	77.73%
	Thermostats	N/A	64.79%
Household Appliances	Household refrigerators and parts	62.3%	53.46%*
	Household clothes washers and parts	76.8%	53.46%*
Lighting	Light Fixtures	N/A	44.69%

End Notes:

- ⁱ BlueGreen Alliance, *Solidarity for Racial Equity*, 2022. Available online: <https://www.bluegreenalliance.org/resources/solidarity-for-racial-equity/#:~:text=Our%20new%20%E2%80%9CSolidarity%20For%20Racial,to%20a%20more%20just%20society.>
- ⁱⁱ BlueGreen Alliance Foundation, *Building Clean database*, 2022. Available: <http://www.buildingclean.org>
- ⁱⁱⁱ Natural Resources Defense Council, *Federal Relief Should Support Healthier Energy Efficiency*, April 2020. Available online: <https://www.nrdc.org/experts/veena-singla/federal-relief-should-support-healthier-energy-efficiency>
- ^{iv} Building Clean, *Beware Recycled, Older Flooring*, 2019. Available online: <https://buildingclean.org/harmful-chemicals/flooring/beware-recycled-older-flooring>
- ^v Carbon Leadership Forum, *Carbon Storing Materials*, February 2021. Available online: <https://carbonleadershipforum.org/carbon-storing-materials/>
- ^{vi} Federal Emergency Management Agency, *Natural Hazard Mitigation Saves Fact Sheet*, June 2018. Available online: https://www.fema.gov/sites/default/files/2020-07/fema_mitsaves-factsheet_2018.pdf
- ^{vii} U.S. Climate Resilience Toolkit, *Retrofitting a Children's Hospital with a Hurricane-resistant Shell*, 2021. Available online: <https://toolkit.climate.gov/case-studies/retrofitting-childrens-hospital-hurricane-resistant-shell>
- ^{viii} Berkeley Labor Center, *Workforce Issues and energy efficiency programs: A Plan for California Utilities*, May 2014. Available online: <http://laborcenter.berkeley.edu/workforce-issues-and-energy-efficiency-programs-a-plan-for-californias-utilities/>
- ^{ix} National Archives Federal Register, *Request for Information Relating to the Implementation of the Build America, Buy America Act*, June 2022. Available online: <https://www.federalregister.gov/documents/2022/06/01/2022-11729/request-for-information-relating-to-the-implementation-of-the-build-america-buy-america-act>
- ^x Department of Housing and Urban Development, *General Applicability BABA Waiver*, 2022. Available: https://www.hud.gov/program_offices/general_counsel/BABA