

**Testimony of Darnell Johnson**  
**Vice Chair of the Building Performance Association, and**  
**CEO and President of Urban Efficiency Group**  
**Before the**  
**U.S. House of Representatives, Select Committee on the Climate Crisis**  
**At the Hearing on April 7, 2022:**

**“Cost-Saving Climate Solutions: Investing in Energy Efficiency to Promote Energy Security and Cut Energy Bills”**

Chair Castor, Ranking Member Graves, and members of the Committee, my name is Darnell Johnson and I thank you for inviting me to testify today on the important role that buildings can play in reducing America’s contribution to global climate change. As you may know, the buildings sector is responsible for 31% of all U.S. greenhouse gas emissions.<sup>1</sup> While buildings are a significant contributor to our climate crisis, they can also be a key part of the solution. My testimony will focus in particular on how the residential sector is key to carbon reductions and achieving numerous other benefits. In addition, I am here because I believe that diversity brings strength, inclusion is indicative of an acceptance that is essential to growth, and equity is a human right that should be embraced as the standard and not an exception. Energy efficiency policies must provide continuous support for the diverse, equitable and inclusive expansion of workforce development, which is indicative of meaningful policy reform.

Policies aimed at retrofitting the over 115 million homes across the country will not only help reduce carbon emissions from the nation’s residential building stock but will also help homeowners save money on their monthly utility bills and improve the comfort, health, safety, and resiliency of their homes. Advancing energy efficiency in buildings across the U.S. will support climate change mitigation and resilience, while also being an engine for job growth and economic opportunity.

I am the CEO and President of Urban Efficiency Group, a utility implementation contractor and community sustainability design firm based in Chicago, IL and I have over two decades of entrepreneurial experience and a fixation on advancing energy equity. My industry-specific credentials include, but are not limited to, BPI-Building

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<sup>1</sup> <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf>

Analyst, Building Envelope, Infiltration Duct Leakage, Energy Auditor, Quality Control Inspector, Healthy Homes Evaluator, RESNET Rater, and EcoDistrict Accredited Professional.

I am also proud to serve as the Vice-Chair of the Building Performance Association (BPA), formerly known as the Home Performance Coalition, a national non-profit 501c6 organization that works with industry leaders in the home performance and weatherization industries to advance energy-efficient, healthy and safe home retrofit policies, programs and standards through research, education, training and outreach. Additionally, I serve as Chair for the Diversity, Equity and Inclusion (DEI) Committee to advance the organization's internal DEI practices to influence the industry more broadly. I am pleased to represent BPA here today.

### **Energy Efficient Buildings are a Pathway to Deep Decarbonization**

As this committee is focused on addressing the climate crisis, I want to emphasize that all I am testifying to today, all policies and measures that will advance energy efficiency, will not only help address climate change and are critical to achieving deep decarbonization. Energy efficiency is not only cleaner and cheaper than building new low-carbon or carbon-free generation, but by reducing the need for energy and stretching out the work of every unit of energy, we can reduce the overall need for more resources. Deploying energy efficiency reduces demand for primary energy and generating capacity needs and therefore lowers the overall costs of shifting to a low-carbon energy system.<sup>2</sup>

Ultimately, the cleanest and cheapest energy is the energy you don't use in the first place. A 2019 report from ACEEE found that energy efficiency alone can cut energy use and greenhouse gas emissions in half by 2050.<sup>3</sup> Buildings deliver 33% of the total emissions reductions in the report's model, and upgrades to existing buildings, homes, appliances, and equipment are identified as some of the largest cost-effective opportunities to achieve these reductions.

The residential buildings sector in particular remains a largely untapped resource for carbon reduction goals. I will discuss specific policy opportunities to address barriers and advance energy efficiency in the residential sector in a moment. But first I would

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<sup>2</sup> An NRDC study found that 80% emissions reductions in the U.S. by 2050 is achievable and cost-effective using existing clean energy technologies. Energy efficiency is the single greatest contributor to emissions reductions in the model scenario which assumes an aggressive, but technically and economically achievable, deployment of energy efficiency across the U.S. economy. <https://www.nrdc.org/sites/default/files/americas-clean-energy-frontier-report.pdf>

<sup>3</sup> <https://aceee.org/sites/default/files/publications/researchreports/u1907.pdf>

like to give you some examples of how energy efficiency can benefit the workforce and the homeowner in ways that can positively impact the lives of Americans.

It is our firm's experience, working in 13 "Chicagoland" communities covering both South and West Suburban Cook County, and 5 communities in Northwest Indiana for more than a decade and delivering energy efficiency retrofit services to more than 6,000 low-income homes, that many (Black, Indigenous, People Of Color) BIPOC and low-income communities are severely underserved by energy efficiency programs. We have observed that there are three primary drivers that sustain this inequity: awareness, access, and affordability. While utility and WAP income qualified programs attempt to address the affordability barrier, awareness and access remain the existential threats to program participation. Failure to incorporate inclusive processes that enlist the input of diverse thought leaders and organizations from within the target communities, perpetuates the use of misguided communication and marketing strategies. In order to connect with hard-to-reach populations, we must first listen to them. To do otherwise stymies information sharing and limits participant enrollment in energy efficiency programs and exacerbates the divide between those who are participating in the fight to address climate change, and those forced to remain on the sidelines.

## **Energy Burdens and Energy Efficiency**

The reduced energy burden resulting from energy efficiency upgrades to the residential stakeholder, in general, and to the low-income residential stakeholder, specifically, cannot be understated. According to a report published by ACEEE, low-income households spend 8.1% of their income on energy costs, on average, in comparison to 2.3% for non-low-income households<sup>4</sup>. However only 17% of homes receiving energy efficient upgrades are identified as low-income. This high energy burden correlates even more strongly with race. Nationally, Black households spend 43% more of their income on energy costs than their white, non-Latinx counterparts; Latinx households spend 20% more; and Native American households spend 45% more.<sup>5</sup> It is critical that a new approach that incorporates procedural justice is used that focuses its results on increasing low-income participation and reducing both carbon emissions and energy burdens.

## **Energy Burdens Matter**

As we consider the adverse impacts of energy burdens on our country's most vulnerable populations, the need for energy equity advocacy becomes clear. We believe

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<sup>4</sup> [Report: Low-Income Households, Communities of Color Face High "Energy Burden" Entering Recession | ACEEE](#)

<sup>5</sup> [u2006.pdf \(aceee.org\)](#)

those that are closest to the problems are also closest to the solutions. As a practitioner and diversity thought leader, it is important that I provide accurate accounts of the social fatigue resulting from the energy inequity that's disproportionately affecting BIPOC and low-income communities. Admittedly, it is not enough for me to share the accounts with our congressional leaders, but rather to be the impetus of innovative ideas that will influence policy and resource allocation going forward.

## **Energy Efficiency Policy as a part of Health and Equity Policy**

As I showed in my example, energy efficiency is a key strategy for not only reducing carbon emissions but also for improving the lives of Americans. Legislation that advances energy efficiency in buildings, especially residential buildings, provides many benefits in addition to energy and pollution reductions including increased comfort, health, and energy affordability.

The occupants of the vast majority of homes in the U.S. experience building-related comfort problems, health issues, and/or high utility bills—problems which could all be significantly mitigated by proper construction techniques and energy efficiency upgrades. Studies have shown that improvements in occupant health from residential energy efficiency are strongest among vulnerable groups: lower income households and residents with pre-existing health conditions linked to housing risks.<sup>6</sup>

Energy costs are a significant living expense. Even before the pandemic, the nearly one-third of U.S. households who face challenges paying energy bills or sustaining adequate heating and cooling in their homes, the cost savings provided by energy efficiency are critical<sup>7</sup>. A study released last year by the Roosevelt Institute and Evergreen Action aptly called “Economic Recovery Begins at Home<sup>8</sup> provides a policy prescription for creating jobs and protecting the climate while focusing on equity. I encourage you to consider it.

Congress should advance policies aimed at helping middle income Americans make efficiency upgrades to their homes. This is why I strongly urge Congress to enact the bi-partisan, HOPE for HOMES Act (H.R. 3456). And, I want to thank Chairwoman Castor and Congressman Casten on this committee for their co-sponsorship. This important legislation aims to help ALL Americans by providing Home Owners Manage Energy Savings (HOMES) rebates for upgrading homes and doubling those rebates for middle and lower income Americans. These rebates target the actual energy performance of a home – so Congress is paying for the real energy savings resulting

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<sup>6</sup> <https://e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf>

<sup>7</sup> <https://www.eia.gov/todayinenergy/detail.php?id=37072>

<sup>8</sup> [https://rooseveltinstitute.org/wp-content/uploads/2021/03/RI\\_EconomicRecoveryBeginsatHome\\_3Pager\\_202103-1.pdf](https://rooseveltinstitute.org/wp-content/uploads/2021/03/RI_EconomicRecoveryBeginsatHome_3Pager_202103-1.pdf)

from those retrofits, investing in America's homes and the people who live in them. You have done your part by including significant portions of this legislation in Build Back Better, but as you know, the job is not done yet and I encourage you to continue to fight to pass H.R. 3456.

In addition to the cost-savings benefits to homeowners, efficiency upgrades also have health and safety benefits. A U.S. Department of Energy report on the Weatherization Assistance Program found that home improvements focused on energy efficiency can improve indoor air quality, which reduces respiratory illness and sick days, and reduce thermal stress caused by exposure to extreme indoor thermal conditions (temperature, humidity, drafts).<sup>9</sup> A report from E4TheFuture, entitled "Occupant Health Benefits of Residential Energy Efficiency"<sup>10</sup> which reviews existing research on the link between resident health benefits and energy efficiency upgrades, also found that residential energy efficiency upgrades can produce significant improvements in asthma symptoms and help improve overall physical and mental health.

While Congress passed the reauthorization and expansion of the Weatherization Assistance Program (WAP) in 2020, and then provided additional support in the bipartisan infrastructure bill in 2021, it is critical that Congress continue to support and expand the WAP. One of the key issues we see are contractors not weatherizing homes because there are barriers – such as mold, asbestos, rodent concerns – that need to be addressed first, before energy efficiency measures can be put in place. I know there are members in the House and Senate looking to allow the Weatherization program flexibility to address these barriers so that unhealthy homes are not left untreated.

I implore the committee to remember that there can be no climate policy without taking into account equity. Walking away from upgrading the efficiency of a home, moving onto another because that home is not healthy, is not seeing climate through an equity lens.

### **Energy Efficiency Through an Equity Lens**

By definition equity means to be fair, and it is with this in mind that I would like to establish a premise to bring the equity lens into focus regarding the energy efficiency industry. Energy efficiency as we know it began in the mid-1970's with the OPEC oil crisis , around the same time the US was wrestling with the social policy exhaustion stemming from the Civil Rights movement of the 50's and 60's. It was during this

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<sup>9</sup> [https://weatherization.ornl.gov/wp-content/uploads/pdf/WAPRetroEvalFinalReports/ORNL\\_TM-2014\\_345.pdf](https://weatherization.ornl.gov/wp-content/uploads/pdf/WAPRetroEvalFinalReports/ORNL_TM-2014_345.pdf)

<sup>10</sup> <https://e4thefuture.org/occupant-health-benefits-of-residential-energy-efficiency/>

paradigm shift that white men established themselves as the dominant force that would drive the energy efficiency industry forward while people of color were inundated with fighting for basic human rights.

To fault the historical trailblazers for their contribution in establishing and advancing energy efficiency would be a misplacement of blame. However, to resist systemic change that supports diversity and equitable access to this emerging market is disempowering. To make this point more salient, I would like to introduce the Social Equity Theory of Change<sup>11</sup>. This theory of change suggests that in order to achieve greater equity the following must be considered:

1. Self - Address the unconscious and implicit biases that shape our opinions and influence how we process the surface level diversity that we see in other social identity groups.
2. Systems - Organizations, companies, and governments are run by people, but if the people that run these entities lack the ability to be equitable, so will the practices, policies, and opportunities that they develop and deploy.
3. Society - Ultimately the end-users, which is society in general, and low-income communities specifically, will experience an inequitable allocation of resources and opportunities.

By sharing and urging consideration of these unconventional, and perhaps uncomfortable, concepts with this committee, I hope to humanize the challenges associated with the climate crisis and energy burden and help you build a policy path that includes equity and job creation while decarbonizing the U.S. economy.

## **Energy Efficiency Creates Jobs**

As soon as the nation began shutting down in response to the global pandemic, America's energy efficiency workforce began to dissolve. A report from E2<sup>12</sup> found that, over the course of 2020, the energy efficiency sector shed a net of nearly 272,000 jobs, an 11% decline that wiped out the consistent job gains from the three years before. The small businesses that make up the residential energy efficiency sector were particularly hard hit by the crisis, as residential contractors conduct most of their work via physical visits to homes. Many homeowners and renters still remain hesitant to invite contractors

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<sup>11</sup> This concept is consistent with the Racial Equity Theory of Change while the Social Equity Theory of Change goes beyond race and racism and addresses the systemic social barriers that deal with inclusion, diversity and equity. [https://www.aspeninstitute.org/wp-content/uploads/files/content/docs/rcc/RACIAL\\_EQUIITY THEORY\\_OF\\_CHANGE\\_08.PDF](https://www.aspeninstitute.org/wp-content/uploads/files/content/docs/rcc/RACIAL_EQUIITY THEORY_OF_CHANGE_08.PDF)

<sup>12</sup> <https://e2.org/wp-content/uploads/2021/04/E2-2021-Clean-Jobs-America-Report-04-19-2021.pdf>

indoors, and it is vital that we support these contractor companies as they rebuild their businesses.

Now is the time to help these small businesses rehire and prepare for a new stage of significant advancement of America's existing home infrastructure. It is crucial that we invest in our workforce and that means that we must ensure that contractors across the country have equal access to job training.

The HOPE Training portion in HOPE for HOMES (H.R. 3456) that I mentioned earlier would provide immediate "HOPE" training support to contractor businesses and help companies pay their contractors to undertake training and educate them about a home's energy structure and systems. While the Build Back Better language is briefer, I urge you to review the needed details in H.R. 3456 where HOPE training provides needed stipends for contractors. These stipends will also support individuals who have changed careers during the pandemic or due to changes in the economy. Because this training also allows for and encourages online training – which has evolved and improved significantly during the crisis – contractors from all states would have access to these courses and would be able to invest in workforce development.

To address climate change, America's homes must use energy more efficiently. As I noted, I am the Vice-Chair of the Building Performance Association which stands ready to support contractors in connecting them to job training and employment resources. BPA is committed to helping build an energy efficiency workforce to meet the demand of the climate crisis.

Energy efficiency was the largest employer and fastest growing sector in the energy industry before the pandemic and can be again. Put simply, energy efficiency equals jobs. According to the 2021 *Energy Efficiency Jobs in America*<sup>13</sup> report released by E4TheFuture, the energy efficiency sector employs over 2.1 million Americans, more than twice as many workers as the entire U.S. fossil fuel industry. In the first half of 2021, the industry added more than 8,000 jobs nationwide, bouncing back from massive layoffs stemming from the COVID-19 pandemic. Still, employment remains well below pre-pandemic total job numbers due to challenges related to workforce, construction, and supply chains. Importantly, these are well-paying and sustainable jobs. Entry level wages in all sectors of energy efficiency jobs exceed the national average and approximately 80% of employers in the industry provide healthcare and retirement account contributions.<sup>14</sup> These local, family-sustaining jobs exist all across the country; 99.8% of U.S. counties have energy efficiency jobs and more than 280,000 of these

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<sup>13</sup> [https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs\\_2021\\_All-States.pdf](https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs_2021_All-States.pdf)

<sup>14</sup> [https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs\\_2021\\_All-States.pdf](https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs_2021_All-States.pdf)

jobs are in rural areas.<sup>15</sup> A significant portion of the energy efficiency jobs in the U.S. are in the residential sector, and 54 percent of energy efficiency jobs involve construction and repairs.<sup>16</sup>

These are the contractors – the “boots on the ground” – installing energy efficiency products and technologies and working to reduce energy waste in homes and commercial buildings across the country. These jobs are, by their very nature, inherently local and cannot be exported. Contractors are local – their kids go to the same schools as their clients, they sponsor baseball teams, they share in community successes and failures. Policies that encourage investment in energy efficiency can further advance growth in this industry, creating even more well-paying jobs all across America and generating economic opportunity through the decarbonization transition.

Importantly, policies that provide incentives for building efficiency retrofits, such as the HOMES act or tax policy like the 25C federal credits, create a ripple effect on jobs. Demand for insulation, air sealing, HVAC will certainly create work for those who install these products, but it also creates jobs in the manufacturing and distribution of those products. This creates jobs around those industrial centers where workers eat, shop, and live.

Not only can energy efficiency be the largest employer in the energy sector, it has the most potential for even more job growth moving forward. With an aging building stock across the country, we have only scratched the surface on the investment potential for energy efficiency improvements. Addressing barriers to retrofitting these existing homes and buildings and advancing energy efficiency across the entire buildings sector will simultaneously support decarbonization and job creation.

It is also important to note that the energy efficiency industry is made up of small businesses: 90% of energy efficiency businesses in America have fewer than 100 employees.<sup>17</sup> These small businesses are the heart of the American economy—creating jobs, driving growth, and saving us all money through improved energy efficiency. They are also the ones that are in need of assistance when it comes to ensuring that there are qualified workers to fill these jobs. Small energy efficiency businesses need resources to help train new hires and provide ongoing education to existing employees, keeping them up to date on certifications and trained in the latest technologies and health and safety practices.

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<sup>15</sup> Ibid; <https://e2.org/wp-content/uploads/2021/04/E2-2021-Clean-Jobs-America-Report-04-19-2021.pdf>

<sup>16</sup> [https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs\\_2021\\_All-States.pdf](https://e4thefuture.org/wp-content/uploads/2021/10/Energy-Efficiency-Jobs_2021_All-States.pdf)

<sup>17</sup> Ibid.

To prepare more American workers for quality jobs in energy efficiency and drive further growth in this industry, Congress should act to support workforce development and jobs training. ***The Blue Collar and Green Collar Jobs Development Act of 2021*** would create a comprehensive program to improve education and training for workers in the energy efficiency industry, including manufacturing, engineering, construction, and building retrofitting jobs. This legislation will result in more American workers who are equipped to provide energy efficiency products and services and whose work will reduce energy waste and save money for homes and businesses across the country. The legislation would also give priority to businesses and other entities that recruit workers from local communities, displaced energy sector workers, veterans, minorities, and women, thereby creating a more diverse, robust, and inclusive workforce of the future. This important legislation continues to evolve, and I want to encourage the members of the committee to work with Chairman Rush to move this legislation through Congress and to the President's desk.

### **Energy Efficiency and Sound Economic Policy – The Small Business Story**

Energy Efficiency provides a career path that pays a living wage, but is also a gateway to small business ownership. Yet the cost associated with training, equipment, certifications, and the access to a qualified workforce are barriers to entry. Our firm developed a quasi-small business incubator (Energy+) to remove the barriers mentioned and increase supplier diversity. This comprehensive approach to developing and deploying more minority business enterprise (MBE) firms in the energy efficiency space, or “business in a box” concept was successful in launching two (2) minority owned energy efficiency contracting firms that boast a six-figure net profit year over year. With greater investments in legislation like the Blue Collar to Green Collar Jobs Development Act of 2021 and the HOPE for HOMES Act of 2021 we can increase the contractor diversity in the energy efficiency sector and experience a more diverse workforce.

### **Small business and micro-business in BIPOC communities**

The Energy+ initiative provides an end-to-end experience to ensure success and sustainability of a new energy efficiency firm. This experience includes, but is not limited to, MBE candidate recruitment and screening, small business development training, BPI certification training, connection to a broader network of support, connection to systems support, access to capital, access to contracts, MBE certification support, and capital purchase support. Additionally, this initiative empowers local MBE service providers the opportunity to create and expand local workforce and small business opportunities, while delivering healthy home and energy assessments and home retrofit services to households at or below 80% of Area Median Income. Despite the many barriers that

entrepreneurs of color face, BIPOC businesses comprise a significant portion of our economy and often act as the economic lifeblood of their communities. Yet, despite the growth of BIPOC small businesses, there is still a disparity when it comes to access to capital, contracting opportunities and other entrepreneurial development opportunities for minority-owned firms<sup>18</sup>.

The disproportionately low number of minorities with jobs in the energy efficiency field is symptomatic of a lack of MBEs working in the space. The lack of qualified MBEs is symptomatic of difficulties any firm faces when entering the relatively small and closed community – the clean energy community may be small, but it is growing. It needs to also grow in inclusivity. MBEs also face barriers associated with limited financial capacity, access to capital, access to clients, and challenges attracting workers in a closed business community. As we invest in addressing climate change, we must invest in a broad and inclusive vision of the green, American jobs that retrofit America.

## **Conclusion**

In conclusion, Madam Chair, members of the committee, I again thank you for this opportunity to come before you and share my story and ask you to consider the homes you and your constituents live in as a part of the solution to the climate crisis. The built environment is one of the largest consumers of energy and thus emitters of greenhouse gas emissions. But we cannot address climate change without being mindful of the impact those policies have on communities of color and low-income households. Please know that we can address all these concerns simultaneously and fundamentally change the relationship people have with their energy use while improving the lives of families and increasing good, green, jobs.

With policy and program innovation that brings all of these pieces together to optimize energy usage we can reduce the need for new power plants, deliver more reliable energy services at lower costs, all while making homes healthier, more comfortable places to live.

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<sup>18</sup> <https://www.sbc.senate.gov/public/index.cfm/minorityentrepreneurs>