



HOME REPAIR FORUM

Resources for Climate Resilient Home Repair
& Collaboration for Systems Change



St. Louis

St. Louis, Missouri | May 14, 2024

About

Urban Land Institute

Urban Land Institute is a global, member-driven organization comprising more than 48,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide. ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 84 countries.

ULI St. Louis

ULI St. Louis brings together real estate professionals, civic leaders, and communities across the region for educational programs, initiatives, and networking events, all in the pursuit of advancing responsible and equitable land use throughout the region. With over 250 members, ULI St. Louis furthers ULI's mission by locally delivering on the Institute's best practices in leadership development and by facilitating regional community service and enhancement of land use policy and practice. ULI serves the entire spectrum of land use and real estate development disciplines. Using this interdisciplinary approach, ULI examines land use issues, impartially reports findings, and convenes forums to find solutions.

Home Repair Network

The Home Repair Network is a dedicated coalition of nonprofit organizations committed to providing free and low-cost home repairs throughout the St. Louis region. The network's goal is to repair homes, prevent vacancies, and build stronger, more vibrant communities.

By uniting efforts, network members make a more significant impact than operating in isolation. Working as a network, HRN organizations are able to more efficiently and effectively assist homeowners in receiving the repair supports they need, promoting aging in place and helping build generational wealth.

HRN organizations believe that everyone deserves a safe and well-maintained home. HRN is building stronger communities, promoting economic prosperity, preventing vacancies, and creating a legacy of generational wealth, one repair at a time.

Cover photo: Home repairs, including a new wheelchair ramp, in progress. (Home Repair Network)

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About

Home Repair Forum

The Home Repair Forum was conceived as a summit for all HRN members, providing space for exploring ideas around climate resilient home repair and the more formal evolution of the network into a collaborative and functional hub. Guest speakers, representing similar home repair networks and consultants from across the United States, provided additional insights into opportunities to build climate resilience into basic home repair projects, perspectives on network coalition building, and guidance on hub formation and operation.

The Home Repair Forum was supported by funding from ULI St. Louis through a Just, Green, and Ready Communities grant from The Kresge Foundation designed to encourage climate resilience in several communities across the United States.



Acknowledgments

This Forum would not have taken place without the support of several key individuals who were instrumental in assembling the speakers, inviting and encouraging participation, and guiding the discussion throughout the session. In particular, ULI would like to thank Aaron Williams, immediate past chair of ULI St. Louis and project manager at Penn Services, and Kacey Cordes, former chair of ULI St. Louis and vice president for affordable housing at US Bancorp Impact Finance. ULI also thanks the leadership within the Home Repair Network, especially Constance Siu, executive director of the North Newstead Association, for allowing ULI to walk this path with them.



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Executive Summary

St. Louis is a city full of promise, of people who love their community, and homes that are architecturally beautiful and built to stand the test of time. That test of time is reaching an inflection point, however, for a significant number of homeowners across the City of St. Louis and disproportionately affects low-income homeowners of color. When faced with the decision to buy food for their family or fix a leaking roof, homeowners are choosing the immediacy of food and leaving the roof for another day.

Recognizing this as a problem that impacts the health, safety, and vitality of families, their homes, their neighborhoods, and the broader city, ULI St. Louis connected with the Home Repair Network in St. Louis to see where and how ULI could bring its resources to the table. In the near term, ULI sought to support the work and, in the long term, push for systemic change that would also respond to the long-standing consequences of racial segregation, inequitable financing, and lack of generational wealth-building

This exploration into the intersection of health equity, home repair, and real estate, which began in 2021, has turned into a partnership that has its sights set on creating a system by which more St. Louis homeowners can seek and receive critical home repair services faster, with fewer hurdles, and with sustainability, resilience, and climate readiness built into the repair.

The latest initiative sparked by this partnership between ULI and HRN was a Forum held on May 14 for HRN members. The Forum featured a panel of professionals from other US cities who are tackling similar work in their communities. Each representative organization had unique perspectives and valuable experiences to share with HRN members, which generally fell into the categories of organizational systems and operations, climate readiness, funding pursuits, and messaging resilience and climate readiness.

The panelists, representing the following organizations, shared their challenges and successes in their respective communities:

- ACTION Housing Inc., Pittsburgh
- City of Detroit, special programs
- HR&A Advisors, community and climate consultancy
- Philadelphia Energy Authority, housing program
- Whole Home Repair Fund, Philadelphia Housing Development Corporation

The challenges of community-wide home repair are complex and, while it is impossible to expect to find one right answer or solution, the variety of perspectives, insights, and advice offered by the panelists provided HRN members with a grounding in what is possible, a clearer understanding of tools that could be used to advance the work in St. Louis, and connections to other practitioners across the US who can be further resources in the work.

These insights may also be helpful to other cities facing similar challenges in addressing home repair at scale. The cities highlighted during the HRN Forum are each approaching the work in slightly different ways, but certain themes remain—a central intake process is key, a collective organization requires dedicated staff, and leveraging energy-efficiency improvements is critical. Across all cities, too, the waiting lists remain long, and the work is challenging—but the results are rewarding.

With insights from the panel, HRN members were also able to spend time as a group workshopping the next steps for HRN as a collective organization, which included hiring an executive director, finishing the initial HRN website and related digital portal, and potentially forming working groups to start tackling the myriad of tasks before it.

The work of the Home Repair Network and its member organizations is critical to cities like St. Louis where aging housing stock is often held by households struggling with even the most basic repairs. The increasing pressures of a warming climate and more frequent and extreme storms can turn these repair efforts into a matter of life and death. Finding ways to support more home repairs for more homeowners, and doing so in a way that supports the resilience of the families within, is a challenge of our generation, and so the partnership between HRN and ULI continues.

Background and Key Forum Takeaways

St. Louis is full of aging, valuable, and architecturally impressive housing stock, and the average age of a St. Louis City home is 100. Yet many homes for Black St. Louisans are not safe and are contributing to negative health outcomes for the families living within. Many of these homes also require more repair than the average homeowner can afford, placing entire households at risk from water infiltration, extreme heat/cold, poor indoor air quality, and unsafe and increasingly unstable structures. These housing challenges and pressures from climate change and increasing severe weather events are disproportionately impacting low-income households and, in St. Louis, communities of color.

- People living in these homes are more vulnerable to the impacts of climate change, especially the extreme heat and urban flooding predicted to increase.
- Utility bills are higher, air quality lower, and the presence of other toxins is more likely in homes needing substantial repair.
- Residents in sub-standard housing are more likely to die during an extreme heat event.
- Physical and mental health outcomes are negatively impacted by these living conditions. Children are particularly impacted in ways that affect educational success.

There is a compelling opportunity to re-imagine how homes are rehabilitated by designing more innovative and resilient programs. ULI St. Louis set out to uncover

how the real estate industry, and ULI members specifically, can help accelerate important work already underway in the areas of home repair, resilience, and vacancy mitigation.

What started as an 18-month exploration into the intersection of health equity and real estate has evolved into a rich, multi-year collaboration between the St. Louis district council of the Urban Land Institute and the Home Repair Network in St. Louis.

The goal was to help stand up and equip a functional, efficient, effective, and scalable network for home repair for low-income households across St. Louis City and St. Louis County.

The Home Repair Network

Home Repair Network (HRN) is a collective of organizations building a more accessible home repair delivery system for those in need in the St. Louis region. The aim is to be a unifying force that brings many organizations together to form a responsive and accessible network that homeowners in need can easily tap into. The goal is to repair homes and thereby prevent vacancies and build stronger, more vibrant communities.

By working together, HRN member organizations will be able to have a more significant impact than working in isolation, speeding delivery of critical repair services like roofing, electrical, HVAC, plumbing, and much more. A repaired home is not just essential for the physical and mental well-being of the homeowners. It is also a critical

economic investment in neighborhood infrastructure that lifts entire communities. By working together, HRN organizations can build stronger communities, promote economic prosperity, prevent vacancies, and create a legacy of generational wealth, one repair at a time.

The founding members of HRN include:

- [Beyond Housing](#)
- [Carondelet Housing Development](#)
- [New City Fellowship](#)
- [City of St. Louis Community Development Administration](#)
- [Habitat for Humanity – St. Louis](#)
- [Mission St. Louis](#)
- [Dream Builders 4 Equity](#)
- [North Newstead Association](#)
- [Paraquad](#)
- [Park Central Development](#)
- [Rebuilding Together St. Louis](#)
- [Sustainable Housing & Equitable Development \(SHED\)](#)
- [St. Andrew's Senior Solutions](#)
- [Urban League of Metropolitan St. Louis](#)

The HRN Forum

In much the same way homeowners may view resilience as an out-of-reach luxury, HRN member organizations are stretched thin and do not have the capacity to explore how they can further support their clients' health and well-being by building resilience into home repair.

The Forum was designed to convene HRN member organizations to achieve two goals. The Forum aimed to raise awareness of climate resilience measures and identify processes and products to assist with climate resilience during the home repair process, which is particularly timely given the expansion of funding available to support these efforts. The other primary goal of the Forum was to learn about the operations of similar organizations in other cities to help strengthen HRN's capacity and effectiveness as a centralized organization.

Through the course of the presentations and discussion, HRN members indicated that while they are already performing many repairs in a "green" manner, they have not explored how to best convey those methods and benefits to their constituents through a lens of climate resilience. "Energy efficiency" is important to homeowners, as a function of keeping utility bills low, but "sustainability" and "resilience" are not often-used terms.

Featured Panelists

The Forum featured presentations and discussions with a panel of professionals from across the United States who are leading work similar to HRN in their communities. Panelists included:

- **Alon Abramson**, Director, Residential Programs, Philadelphia Energy Authority (Philadelphia, Pennsylvania)
- **Hannah Glosser**, Director, HR&A Advisors (New York, New York)
- **Dan Sullivan**, Housing Stabilization Program Manager, ACTION Housing Inc. (Pittsburgh, Pennsylvania)
- **Karen Washington**, Program Manager, Philadelphia Housing Development Corporation, Whole Home Repair Fund (Philadelphia, Pennsylvania)
- **Heather Zygmuntowicz**, Chief of Special Housing Programs, City of Detroit (Detroit, Michigan)

Key Themes

The programs and guidance shared by the panelists offered insights to HRN members in the areas of organizational formation and operation; incorporating energy efficiencies; funding support; and messaging. The following information is meant to serve as a catalog of sorts, a resource from which to draw ideas for charting the best path forward for HRN.

Organizational Formation and Operation

Tackling a challenge like home repair across an entire city is no small task and multiple organizations across multiple communities have risen to the challenge. There is strength in the number of people and organizations interested in making a difference with home repair, yet the challenge lies in the opposite side of that same coin: with so many spread so wide/thin, how can communities form an organization or network that can capably and reliably take on this work? Three of the



Forum panelists—representing Philadelphia, Pittsburgh, and Detroit—shared their experiences in the formation of their city's home repair systems.

Who was invited? In Pittsburgh, everyone and every organization was convened at one time, including nonprofit organizations of various sizes and municipalities concerned about the state of the homes within the jurisdiction. The group assembled was committed to ensuring that everyone had a voice at the table, including the community organizations representing the metropolitan area's most vulnerable homeowners.

For Detroit, the city had 49 organizations operating in the home repair space and 40 programs operating simultaneously. The convening of interested and involved parties included nonprofits (community development corporations, community development organizations, neighborhood development corporations, etc), governmental entities, corporate players, and faith-based organizations. Across this landscape, some services overlapped or were duplicative while others performed a number of different services and it was difficult for residents to know which organization to approach or how to navigate through the options.

Local governments also have a role to play here and partnerships with those entities are key. Local governments have responsibilities to the communities they serve and the residents who live within the jurisdiction. Whether or not they lead the charge in home repair, the work should be done in partnership, which can also unlock access

Whole Homes, Philadelphia

Annual funding: \$40 Million

Staffing: 9-11 people

Volume: 1000 calls/week and 10,000 applications/year (new and returning homeowners)

to funding for the partnership that singular entities might not be permitted to access.

Framing questions at the start of a home repair program. For Pittsburgh, the following questions helped frame the formation of ACTION Housing.

- *How can we be collaborative in a County with 130 separate municipalities and dozens of separate community advocacy organizations and CDCs?*

ACTION Housing along with the newly elected County Executive held large group meetings with stakeholders and small-group sessions in low-income census tracts with elected officials and residents to hear and learn about their experiences with similar programs.

- *How can we ensure that program applicants have a fair and low-barrier application process?*

Working with the County's Department of Human Services (DHS), ACTION Housing created an application database to streamline and simplify the application process. They established application drop-in centers and worked with local organizations to provide application



Alon Abramson

Director, Residential Programs
Philadelphia Energy Authority
Philadelphia, PA

Alon Abramson is Director of Residential Programs at the Philadelphia Energy Authority where he administers residential energy efficiency and renewable energy programming. Alon oversees Solarize Philly, the nation's largest solarize program to help all Philadelphians go solar. Additionally, Alon oversees Built to Last, a nationally-recognized program that delivers holistic home improvements to low-income homeowners by layering together existing improvement, health, and energy efficiency services. Alon's work is aligned with the Philadelphia Energy Authority's mission to leverage energy as a tool for real social impact by improving the environment, reducing utility costs, and creating jobs.

Philadelphia

\$3.7 Billion in repair need

23.5% poverty rate in the city

Individual energy burdens are high (many spend 18% of income on utilities)

Philadelphia Energy Authority

Funding: \$50M for repairs

Staffing: 3 people

assistance for those who struggle with online processes.

- *How can we ensure equitability when selecting eligible applications?*

Working with Stanford University and Brandeis University, ACTION Housing created an algorithm that weighted applicants' percentage of being chosen so that those communities that have been historically overlooked have an increased chance of being selected.

- *How can we tie together the multiple local, city, and county-based home improvement programs so applicants will have an easier time applying?*

The application database was created to allow for relatively easy additions and updates to fields, menu items, and other program criteria. Other agencies can access prior applicants' data once completing an information-sharing agreement with the DHS. Since the database's creation, the City of Pittsburgh's Urban Redevelopment Authority has been working to add its program to the database.

Taskforce formation to guide implementation. In Detroit, a system of six task forces was formed to help organize the universe of home repair organizations, programs, and services. These foundational groupings established a framing and alignment for all providers and are flexible to allow additional organizational layers as the work evolves. This initial alignment helped build trust across the organizations

and is serving as a springboard for additional momentum and deeper/further trust building.

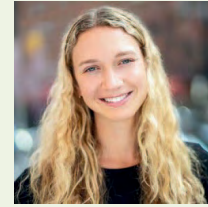
Homeowner application practices. While most of the panelists expressed a goal of hosting most of the application process online, they noted that the addition of paper applications at drop-off sites was important to operate in a manner that was approachable for as many homeowners as possible. If a sole point of application is not feasible across multiple organizations, consider a system that allows multiple (existing) applications to be reviewed and sorted by one funnel.

In Philadelphia, the Single Home Improvement Application (SHIA) is working to standardize application intake, and the One Front Door portal allows homeowners to fill out a form and upload verification documentation once.

If you ask for the sun, moon, and stars right out of the gate, the effort will die on the vine before it ever gets started.

—Heather Zygmontowicz

Data collection and survey tools. Data is an important element of collective home repair work—it demonstrates the scope of the challenge, it supports the need to fund solutions, and it can elevate the impact of programmatic successes. It is incredibly helpful to start collecting data early, however, panelists cautioned to start slowly by collecting a few key data points. The work in Detroit began with only eight questions.



Hannah Glosner
Director, HR&A Advisors
New York, NY

Hannah draws on her experience in climate adaptation, stakeholder and community engagement, and economic development to support equitable and resilient practices. Based in HR&A's New York office, Hannah works on master planning efforts, stakeholder and community engagement, and program design.

Prior to joining HR&A, she was a Manager at 100 Resilient Cities (100RC) managing the 100RC Tools portfolio, which practically applied resilience theory to urban strategies and projects. This included leading ideation and capacity building workshops in cities, advising on tactical urbanism projects, and training cities and staff.

In addition, Hannah managed and developed external partnerships in the economic development, community engagement, and equity sectors that offered member cities innovative solutions to address their needs. She also was the project manager for the social infrastructure program and pilot in Cali, Colombia. Hannah worked at the Council on Foreign Relations and Global Strategy Group before joining 100 Resilient Cities.

Early data collection can also come with early key performance indicators (KPIs). These key measures can help organizations better understand how and where they are meeting their targets or, conversely, where more attention is needed. While it may still be too early to set KPIs for HRN, it is not too early to start having conversations about the type of data to collect and the measurements or targets to track.

ACTION Housing and its partners in Pittsburgh invested \$800,000 to build their database. While the upfront costs were significant, the partners viewed the efficiencies gained as worth the investment. Those efficiencies gained were found in reduced staff time, shorter application processing times, the ability to move from scope to contract quicker, and delivering a finished product to the homeowner faster.

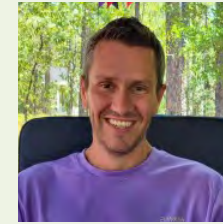
ACTION Housing, Pittsburgh

Received 4,300 applications in its first 30 days—the organization had funding to address only 250 of them.

To select applications equitably, ACTION Housing, Stanford University, and Brandies created an algorithm that weighed the applications—factors included aging in place, two+ major repair needs, low-income census tract—and randomized the selections. This ensured there would be no human bias in the selection process and met the true point of their funder's guidance to help those most in need.

Collaboration. The panelists unanimously agreed that this work is complex, far-reaching, and requires skills and capacity far beyond any one organization.

- Collaboration that maximizes the particular expertise of each organization and leverages funding streams for collective impact will provide the greatest value to the individual homeowners as well as the broader community in which the organizations operate. Built to Last layers several funding sources with help from partners to achieve critical home repairs. A representative repair to a homeowner's wall and kitchen bump-out leveraged the Basic Systems Repair Program, the Weatherization Assistance Program, funding from Habitat for Humanity, and supplemental funds from Built to Last.
- Collaboration is also needed to effectively address and improve the policies that impact home repair, particularly as home repair is often the top request in community benefits agreements. Collective advocacy can help inform and impact the federal and state programs that create home repair funding sources, the drafters of which are often disconnected from the complex process of home improvement.
- Additionally, collaboration will be required to meet the need and embrace the opportunities for workforce development to support the repairs across the ecosystem.
- Finally, collaboration can support one central organization acting as lead on the



Dan Sullivan

Housing Stabilization Program Manager, ACTION Housing Inc. Pittsburgh, PA

Dan is the Housing Stabilization Program Manager for ACTION Housing Inc., a large Pittsburgh-based non-profit housing development and social service agency. He's been there for over 15 years and is currently the Allegheny County Whole Home Repairs Program Manager. He has worked in housing stabilization and as an affordable housing advocate for over twenty-five years.

He graduated from the University of Pittsburgh where he received a B.A. in social science. He's an avid runner, outdoorsman, and a Yinzer through and through.

program, convening organizations and partners, providing centralized resources (application intake, contractor sourcing, etc.), and speaking with one voice to the consumer public, partners, and national funders.

Incorporating Efficiency Improvements

There is an exciting and compelling opportunity to incorporate energy efficiency and climate resilience into home repairs, particularly repairs for our cities' most vulnerable residents. Once basic systems are in good working order and health and safety needs are met, homeowners may have greater capacity to consider energy-efficient measures. Enhanced energy measures can then follow for those who have the need, understanding, and access to resources.

For many, the barriers to incorporating climate resilience into their home repairs can include the upfront investment that may be required,

a lack of familiarity with the products or processes, the prioritization of other factors (e.g., speed of repair, accessibility of contractors, etc.), or uncertainty around the existence or timing of the investment paying off in lower utility bills. While few will seek out climate-resilient solutions for an otherwise functioning system, incorporating such energy-efficient solutions during a triggering event— such as a broken air conditioning unit, a mortgage refinancing, roof failure, or renewal of a housing assistance program contract—may make clearer sense.

But first, make the home safe. For many homeowners, initial repairs to ensure health and safety must be made before a conversation about energy efficiencies or climate-resilient improvements can take place. In Connecticut, the state's Department of Energy and Environmental Protection provides Residential Energy Preparation Services to fund needed home repairs, readying the home for follow-on weatherization work.

Karen Washington

Program Manager
Philadelphia Housing Development Corporation, Whole Home Repair Fund
Philadelphia, PA

Karen Washington is a dedicated and reliable public administrator with a degree and over nine years of leadership experience. Her expertise spans planning, forecasting, reporting, data analysis, and financial management. Karen has a proven track record in participating in and leading multidisciplinary teams, including accounting, legal, audit, and communications, to identify key emerging issues and performance metrics. She is a skilled budget originator and contract manager, with a keen aptitude for vendor relations and customer service. Her mission-driven approach and varied experience make her a valuable asset in any public administration setting.



HOME ENERGY EDUCATION & REBATE PROGRAM

Get valuable efficiency training, up to \$300 in energy saving freebies, and invest in your home with comprehensive energy efficiency upgrades through Holland's Home Energy Education and Rebate Program.

Save as much as \$6,000 on qualified projects to improve the efficiency and comfort of your house, condo or apartment.

[LEARN MORE](#)

The City of Holland, Michigan, created the [Holland Energy Fund's Home Energy Education & Rebate Program](#) to make it easier for homeowners, renters and landlords to reduce their energy use and utility bills while increasing the value of their homes.

Philadelphia Workforce Development

The Green Retrofit Immersive Training (GRIT) program is a classroom and field training program that takes place over 18 weeks and pays participants \$15.40 per hour to learn to service energy-efficient, green systems. It was designed as workforce development pairing program to ensure a pipeline of talent for contractors that will experience rise in workload and is funded by the Philadelphia Department of Commerce and the William Penn Foundation.

Removing barriers to allow for weatherization improves residents' health by removing issues such as mold, asbestos, vermiculite, and other conditions. It also reduces utility bills from the energy efficiency upgrades installed after barrier remediation, prevents disease and injury, increases the quality of life for residents, and protects vulnerable individuals.

—Residential Energy Preparation Services

The home's envelope must be sealed first and any health and safety risks (particularly for children) removed before work can begin. In many cities, this first step can cost between \$70,000 and \$100,000 and is needed before decarbonization efforts and climate resilience measures can begin. The utility savings cannot occur with drafty doors and windows or little/no insulation.

One of the panelists also mentioned the difficult choices repair organizations often face when trying to make a home safe while also adding more sustainable elements. If a home has an issue with its gas service, the first priority is to repair the gas line and make it operational and safe for the homeowner. Later on, the homeowner can consider moving to electric systems or solar power, but their safety will always take precedence.

Reducing the energy burden. The Built to Last program in Philadelphia was established to reduce the energy burden for households, yet program leaders soon discovered that there were also a host of other repairs

that needed to be made before the energy-efficient improvements could be explored. Built to Last helps coordinate all of the other repair programs so homeowners can access any or all that will help with needed repairs. The primary services include applicant screening and program enrollment, property assessment to identify all repairs needed, and construction management. The goal of the program is whole home repair which also reduces the energy burden for the homeowner.

None of the energy efficiencies will matter if the homes are Swiss cheese.

—Panelist

Funding Resources

Funding home repair across metropolitan areas will always be a challenge. With multiple organizations vying for some of the same funding streams, the challenge grows even more difficult. Collaborating, streamlining, and pursuing funding for resilience, sustainability, and energy efficiency can help organizations make good use of their resources and tap into additional support to serve more homeowners.

Federal resources. There is an unprecedented amount of funding at the federal level for climate mitigation. The funding—which generally falls into the categories of planning, capital, and operations—is pretty flexible, but the organizations need to be clear about what is being funded and how the money will be used.



Heather Zygmuntowicz

Chief of Special Housing Programs
City of Detroit
Detroit, MI

Heather Zygmuntowicz is a CPA by trade, having started her career at PriceWaterhouse Coopers specializing in utility audits and consulting. In 2014, she left public accounting to head up operations at the Detroit Land Bank Authority.

Heather led the agency's process improvement and implementation efforts, as well as the creation of the Rehabbed & Ready Program, where she first delved into single family housing.

Eventually transitioning to the City of Detroit, she implemented the new Bridging Neighborhoods program and later led the City's entire home repair portfolio of over \$125M in programming and over 70 staff. After stepping away from her full-time role in 2023, Heather took on a series of part time roles in the home repair and energy efficiency sectors. She currently supports the State of Michigan's Office of Climate & Energy as well as leading a new initiative at the City of Detroit, the Citywide Home Repair Task Force.

- The US Department of Energy's [Buildings Upgrade Prize](#) (Buildings UP) program recently launched to fund building upgrades that transform buildings into "more energy-efficient and clean energy-ready homes, commercial spaces, and communities." The \$22 Million in funding was divided between 45 teams who applied for cash awards and technical assistance.
- [Inflation Reduction Act](#) (IRA) funds clean energy across the landscape of buildings, vehicles, and manufacturing using a combination of grants, loans, rebates, incentives, and other investments. For homeowners, the goal is to help households afford energy-efficient appliances and upgrades when they need to make home repairs, helping them save money on utilities in the years to come.
- [EPA Community Change Grants](#) fund environmental and climate justice activities to benefit disadvantaged communities through projects that reduce pollution, increase community climate resilience, and build community capacity to address environmental and climate justice challenges.
- [Green Resilient Retrofit Program](#) seeks to amplify recent technological advancements in utility efficiency and energy generation, to help prepare for climate hazards by reducing residents' exposure to hazards and protecting life, livability, and property when disaster strikes.

It is important for organizations to understand the time and labor that will be required to apply in relation to any potential funds that may be awarded. It is also important to know if the funding options are stackable, i.e., can be layered on top of other funding received. (See page 23 for additional information on funding pursuits.)

Local resources. Some cities, including Philadelphia, have established low-interest loan programs for landlords to encourage energy-efficient improvements and system upgrades. Local and national foundations can also be an excellent source of funding, particularly as many are focused on ensuring that historically marginalized communities finally receive the attention and investment they need and deserve.

Organizational focus on funding pursuits. As Detroit's working groups get underway, there is one task force dedicated to funding and advocacy. Working together, the organizations are striving to coordinate their funding streams by sharing information about their funding pursuits, seeking to better collaborate in those pursuits, and then celebrating everyone's funding wins.

Messaging Climate Readiness

Communicating the importance of healthy and resilient home repair is critical. Funders, community partners, and homeowners all need to understand the benefits of using sustainable practices, resilient materials, and climate-ready processes in the process of home repair. While each constituent group

may require a slightly specialized message, the following points are foundational and should be shared across the board.

- **Frame energy efficiency as a tool for impact.** The Philadelphia Energy Authority outlines the impact in the areas of economic development, creating jobs, alleviating poverty, and improving public health.
- **Basic repair can be energy-efficient repair.** Safety is the necessary initial focus during, yet healthy and energy-efficient can be folded in at the same time, for the same repair.
- **Leverage data.** Understanding the universe of home repair needs is critical to encouraging partners to come alongside and spurring funders to action. KPIs can help tell the story and deferral (those who do not receive repairs due to system capacity issues) and realization rates are really important. Similarly, developing KPIs and energy benchmarks can also support the message around the need and benefits. Built to Last has established a benchmark that quantifies the energy burden their clients face, with as much as 18 percent of their income going to utilities. That figure reinforces the need for more repairs, more funding, and more focus on energy efficiencies.

The Forum briefly discussed their challenges in messaging climate resilience and sustainability to their clients and funders. This topic deserves greater focus in the coming months, and HRN is encouraged to seek

specific expert guidance from a professional who can help shape climate-readiness messaging for HRN's various constituencies.

What is next for HRN?

The HRN members in the room took time to share their reactions to the information presented by the panelists and discuss a few ideas for the next steps for the St. Louis organization. In addition to completing the HRN website and portal, the following ideas were introduced and lightly discussed. More discussion will be required to fine-tune and prioritize the path forward.

Explore proof-of-concept collaboration project(s). Building on the call for collaboration, the members considered what it might look like to collaborate on a few houses or projects to demonstrate to funders that efficiencies can be gained by working together, leveraging one another's strengths, and fixing more homes faster. HRN members know where in the community the greatest needs lie, and using those areas, shovel-ready projects and plug-and-play programs can speed into action faster and more efficiently than waiting on another study or set of data to confirm it. HRN can track the work along the way and

both confirm and further demonstrate that the work is being done in the right areas. ULI would welcome the opportunity to explore this collaborative pilot further with HRN.

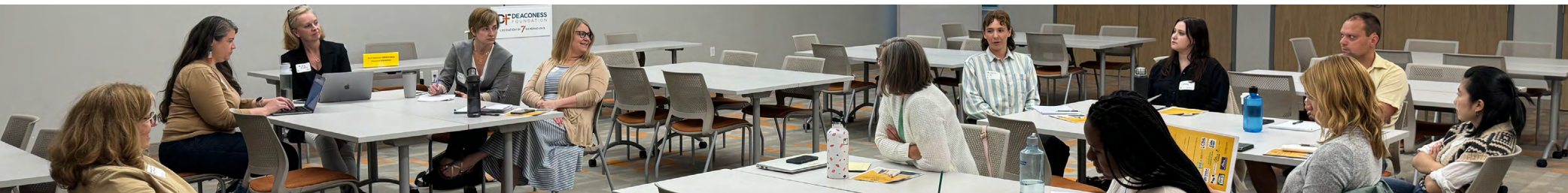
Conduct a landscape analysis. Ultimately, a comprehensive landscape analysis—detailing what improvements are taking place and where—would be powerful to take to future partners and funders. This could also include details regarding the various organizations involved and their areas of particular expertise. These could support some fairly strong funding requests.

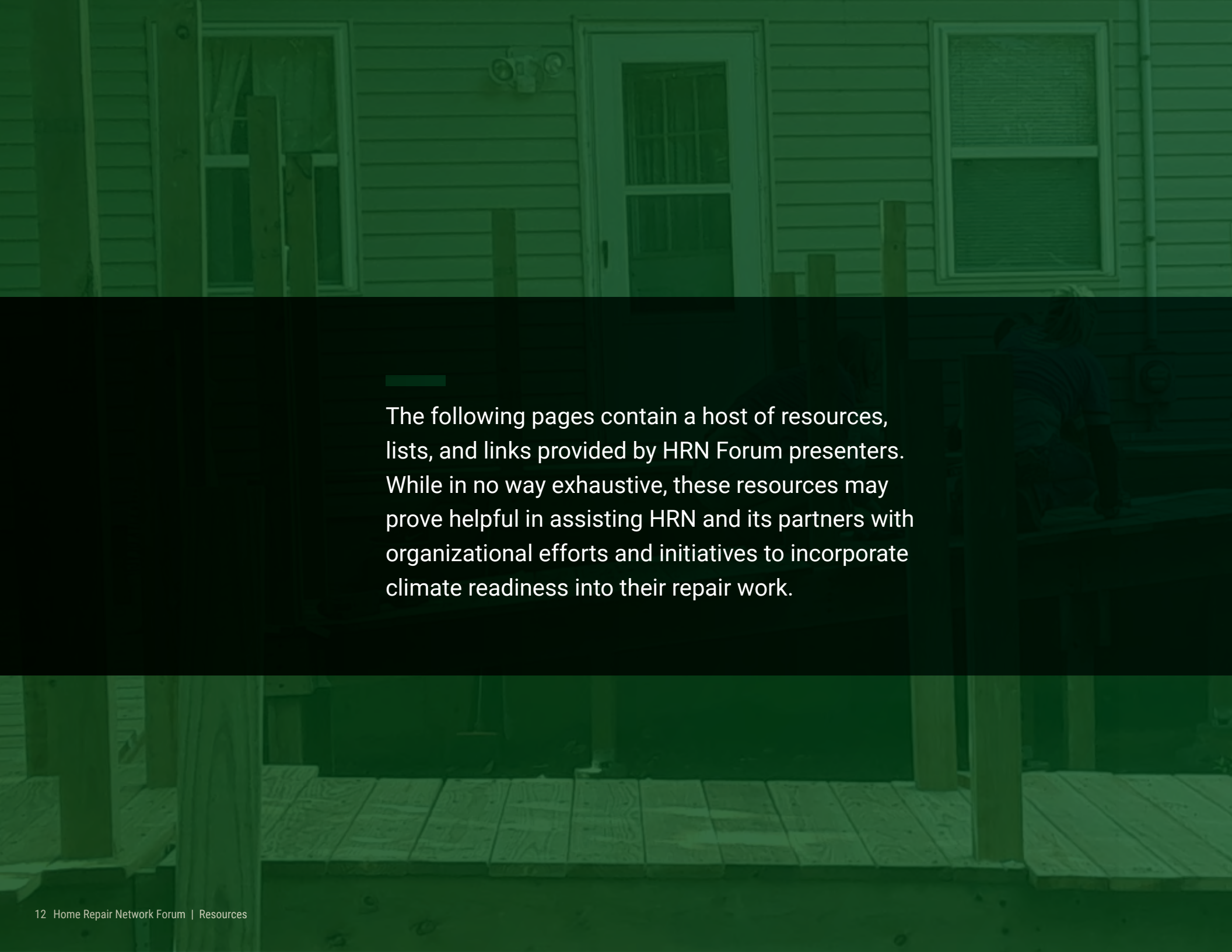
Use a SWOT analysis to find gaps. While the current membership of the HRN represents a wide array of expertise, there are likely still gaps in services. A Strengths, weaknesses, opportunities, and threats (SWOT) analysis will help the network identify any holes and then work to bridge any gaps. HRN is also encouraged to identify where skills align, overlap, and complement to help support one another, collaborate, and not duplicate efforts.

Consider working groups to tackle the tasks ahead. The organizational challenges of HRN remain—the member organizations are under-

capacity and striving to keep up with their own workflow, leaving little time to consider the network's organization and operation as a whole. By forming working groups, a wider array of individuals can step in, in much smaller degrees, to begin chipping away at all of the tasks that need addressing. In addition to the working groups discussed during the Forum, HRN would be wise to dedicate a working group to the exploration of staffing models for a collective organization and potential funding sources to ensure the longevity of staffing support and capacity. Collectively, the impact of these working groups will be significant and supportive of the future HRN.

As the HRN members continue down the path toward greater collaboration, organizational efficiency, and building climate resilience into their repairs, it will be critical to keep the residents centered in the work. With an inaugural executive director on the horizon for HRN, it is time to be hosting these important conversations so that when that person is on board, the organization can move more readily toward decision-making. HRN is built upon collaboration. It is time to ensure that collaboration leads to action.





The following pages contain a host of resources, lists, and links provided by HRN Forum presenters. While in no way exhaustive, these resources may prove helpful in assisting HRN and its partners with organizational efforts and initiatives to incorporate climate readiness into their repair work.



Network Organizational Tools and Resources

For ease of access, each of the following documents are linked to individual documents, most of which can be found within this [shared Google Drive](#).

Manuals

[Basic Procedures Manual](#) (Built to Last)

Includes :

- Goals
- Roles
- Policies
- Application Intake and Approval
- Messaging to Potential Applicants
- Property Assessment and Assessor Coordination
- Funding and Construction Agreements
- Construction Documents
- Close-out, Reporting and Survey information

[Allegheny County Whole Home Repairs Program \(WHRP\) Program Manual](#) (ACTION Housing, Inc.)

Includes :

- Applying for Assistance
- Determining Eligibility
- Prioritization and Selection
- Determining the amount of assistance
- Coordination of Contractors
- Preparation and the Work
- Making payments
- Denials of assistance and appeal
- Rental Properties
- Non-Discrimination
- Conflict of Interest/ Disclosure

Intake Forms

[Welcome Letter](#), Built to Last

[Sample Intake Form](#), Built to Last

[Intake Data and Format](#), Built to Last (Excel spreadsheet)

[One Front Door](#), Philadelphia's Department of Planning and Development

[Program Data Release of Information and Waiver of Liability](#)

[Income Affidavit](#)

[Non-residency Affidavit](#)

Utility Authorizations

- » [Authorization to Access Water Bills](#)
- » [Authorization to Access Gas Bills](#)
- » [Authorization to Access Electric Bills](#)

[Eligibility Guidelines](#), Philadelphia Energy Authority Built to Last

Close-out Forms

[Close-Out Inspection Report](#), Philadelphia

[Participant Complaint Form](#), Built to Last

Model Agreements

[Participant Project Agreement](#) (includes close-out inspection report)

[Program Services Agreement](#), Philadelphia Green Capital Group

[Program Services Agreement](#), Philadelphia Energy Authority

Requests for Proposals

[Program Services Contractor](#), Philadelphia Green Capital Group

[Housing Retrofit Service Providers](#), Philadelphia Energy Authority

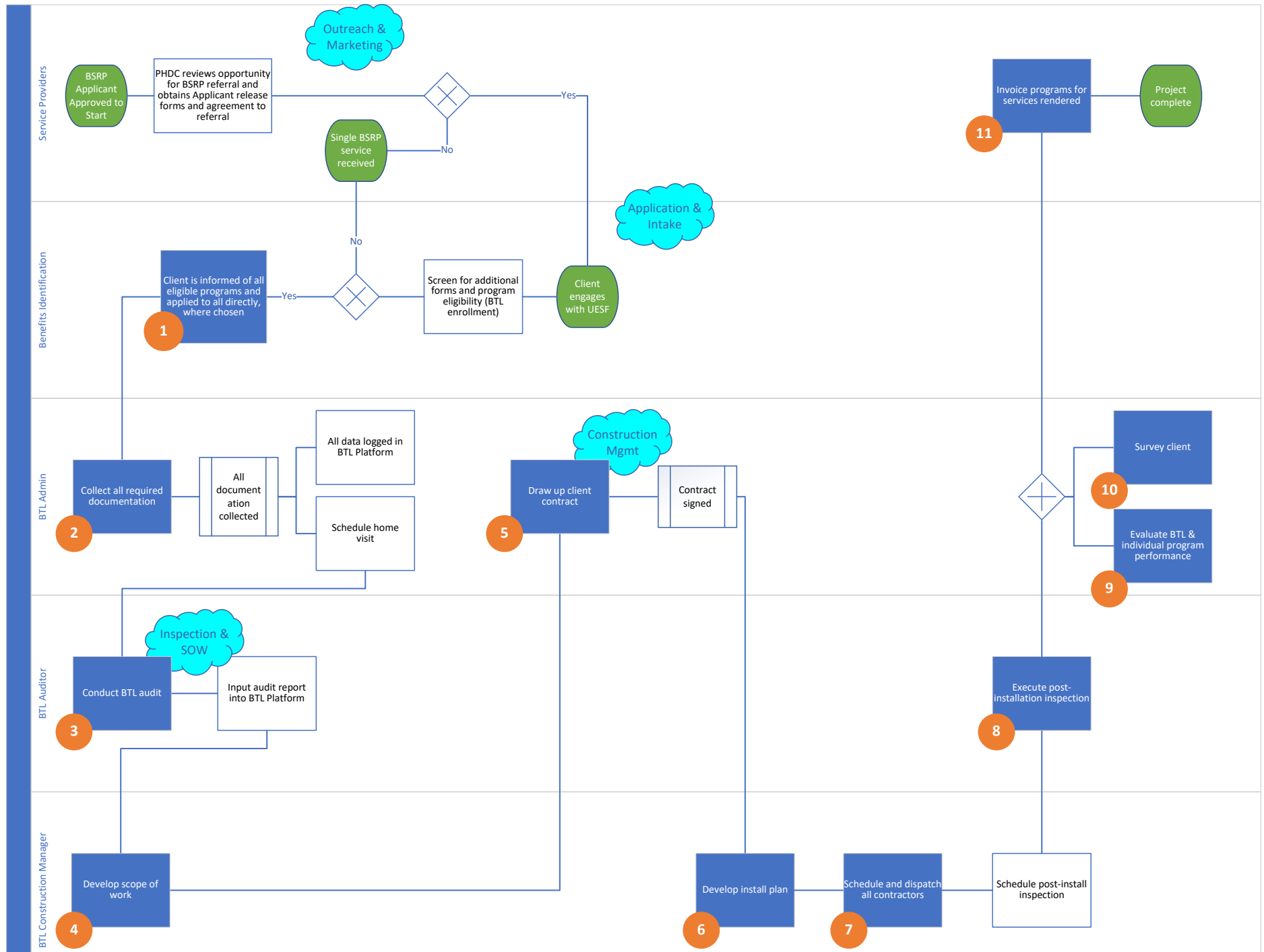
[Salesforce Services](#), Philadelphia Energy Authority

Communications

[Participant Welcome Letter](#), Built to Last

[Frequently Asked Questions](#), Whole Home Repairs Program

Process Map (Built to Last, 2022 Pilot)



Task Force Work Groups (Detroit's Citywide Home Repair Task Force)

Work Groups

Inter-Organization

Complex, high-cost case coordination

Funding and Advocacy

Increase funding and ease of program administration

Universal Intake and Data Sharing

Coordination of application data and data sharing processes

Universal Assessment

Coordination of house assessment data and processes

Best Practices

Review of comparative practices within and outside of the city

Tenant and Landlord

Specific focus on program roadblocks unique to tenants and landlords

Structure

Task Force Meetings

Held quarterly, this will be the time for all organizations to join simultaneously and receive updates from each other and from the work groups.

Work Groups

Work Groups are where member organizations will be able to dig deep into specific issues and begin to craft solutions for implementation. Work groups are encouraged, but not required, to be a member organization.

Data Share

Sharing of high-level data regarding the home repair programs administered, including outcome data, on a monthly basis.

Data Sharing Philosophy

Even the largest programs cannot address the entire need in the City of Detroit. Collecting data assists all organizations with:

- Understanding program overlap
- Communicating collective work
- Advocating for additional funds

Required Data

1. Organization Name
2. Program
3. Repair Type(s)
4. Date Completed
5. Amount (\$) Spent – Total
6. Single Funding Source (y/n)
7. Address / Block ID
8. Relationship to property

Optional Data

9. Potential remaining repair needs
10. Number of people in household
11. Vulnerable population (senior, child, disabled)
12. Walkaway reason

Task Force Work Groups (continued)

Inter-Organizational Goals and Outcomes

Goals

1. Develop a home repair matrix, coordinating with other Home Repair Task Force work groups as appropriate.
2. Finalize case referral process and criteria.
3. Finalize ownership of case coordination.
4. Successfully execute coordination of 10 homes with complex repair needs.

Outcomes

1. Complete (ongoing).
Seven organizations completed a survey capturing five key categories: availability, repairs, amount, eligibility, proposed involvement in Work Group.
2. Complete.
A smartsheet referral form was confirmed for the referral process; adjustments were made to form requirements from Work Group discussion.
3. Complete.
The Work Group agreed that cases will be owned by the submitting organization.
4. In Progress – Started.
One case has been coordinated between organizations, additional referrals are welcome!

Universal Assessment Goals and Outcomes

Goals

1. Map member home repair assessment forms/tools.
2. Create a library of standardized home assessment questions.
3. Data sharing of assessments for the purpose of determining trends in housing conditions across the city.

Outcomes

1. Complete.
16 organizations completed a survey capturing inspection categories and assessment parameters, which are mapped.
2. In Progress – Started.
Five assessment tools were received. These are currently being compiled and reviewed by the Work Group.
3. Not Yet Started.

Universal Intake and Data Sharing Goals and Outcomes

Goals

1. Create a landscape assessment of current intake forms and data sharing policies.
2. Propose baseline governance and rules for data sharing.
3. Determine what information should be shared (including assessment data).
4. Determine a method to sharing data that prioritizes both the protection of resident data and having low or no barriers to entry for the organization collecting/sharing the data (in coordination with the Detroit Housing Network).

Outcomes

1. In Progress - Started.
Survey on organization's unique intake form(s) is open until 3/15.
2. Not Yet Started.
3. Not Yet Started.
4. Not Yet Started.

Task Force Work Groups (continued)

Funding and Advocacy Goals and Outcomes

Goals

1. Identify all current funding streams for home repair, including gaps in service and gaps in access.
2. Develop and/or update at least 2 policies to improve the ways in which home repair is delivered in Detroit.
3. Identify, coordinate, support and/or submit at least 3 proposals in 2024 to bring in additional home repair funds to Detroiters (IRA Community Change Grant).

Outcomes

1. Not Yet Started
We plan to develop this from a former draft and in partnership with Resource Guide updates.
2. Not Yet Started.
3. In Progress - Started.
Two proposals have been put forward to date:
 - State legislature budget ask.
 - Community Change Grant – a request has been submitted for partnership with City/Sustainability and the CCG proposal is ongoing.

Best Practices Goals and Outcomes

Goals

1. Identify 5 best practice areas for work group discussion and best practice recommendations:
 - a. Define home repair and walk-away criteria,
 - b. Agency/organizational structure,
 - c. Pre-construction preparation and communication (inclusive of resident and contractor),
 - d. Construction management, and
 - e. Post-construction.
2. Create a shared library of best practice recommendations and example protocols as a membership resource.

Outcomes

1. In Progress – Started.
We have finalized our definition for home repair. Our discussions will continue at the following meetings:
 - a. Walk-away criteria – March
 - b. Agency/org structure – May
 - c. Pre-construction – April
 - d. Construction management – July
 - e. Post-construction – August
2. Not Yet Started.

Tenant and Landlord Goals and Outcomes

Goals

1. Create a baseline analysis of home repair products available to rental units.
2. Create a resource outlining best practices in preserving unit affordability, including program implementation recommendations and when landlord home repair programs are administered.
3. Identify existing roadblocks to renter/landlord homes in achieving program eligibility and/or renter/landlord permission for home repairs, with corresponding recommendations to alleviate the identified roadblocks.

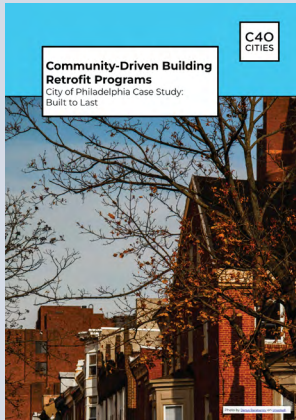
Outcomes

1. In Progress - Started.
The Work Group confirmed required fields for the landscape analysis and will partner with the Funding and Advocacy landscape analysis process.
2. In Progress – Started.
A listing of both local and nationwide resources and references has been started, which will grow through group discussions and findings.
3. Not Yet Started.

Case Studies

City of Philadelphia Case Study: Built to Last

Community-driven Building Retrofit Programs

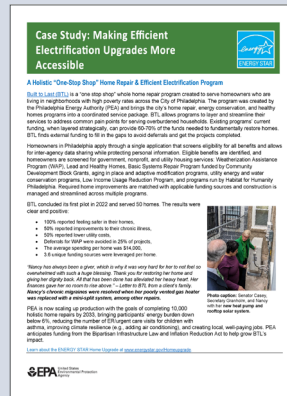


Philadelphia's Built to Last program is a "one-stop shop" whole home repair program for low- and moderate-income homeowners. Built to Last integrates the city's existing

home repair, energy conservation, and healthy homes programs into a coordinated service package to make homes healthier, safer, and more affordable. Residents in Philadelphia's older housing stock face high energy burdens and deferred building maintenance that impacts their health and safety. Built to Last addresses these critical challenges by helping homeowners complete all necessary upgrades and by braiding multiple funding sources to help cover the costs.

US Environmental Protection Agency

A Holistic "One-Stop Shop" Home Repair & Efficient Electrification Program



Built to Last (BTL) is a "one-stop shop" whole home repair program created to serve homeowners who are living in neighborhoods with high energy costs across the City of Philadelphia. The program was created by the Philadelphia Energy Authority (PEA) and the City of Philadelphia. The program was created by home programs into a coordinated service package. BTL allows programs to layer and streamline their services to address common pain points for serving overburdened households. Existing program current funding, when layered strategically, can provide 60-70% of the funds needed to fundamentally restore homes. BTL finds external funding to fill in the gaps to avoid deferrals and get the projects completed.

Philadelphia. The program was created by the Philadelphia Energy Authority (PEA) and brings the city's home repair, energy conservation, and healthy homes programs into a coordinated service package. BTL allows programs to layer and streamline their services to address common pain points for serving overburdened households. Existing programs' current funding, when layered strategically, can provide 60-70% of the funds needed to fundamentally restore homes. BTL finds external funding to fill in the gaps to avoid deferrals and get the projects completed.



Climate Ready Home Repair Resources

Building Upgrades

Building upgrades make a building more efficient through conversion of a building's heating, hot-water, and other systems to electric equivalents. Building upgrades can include repair or replacement for:

- Energy efficiency
- Water conservation
- Health and safety
- Electrification
- Renewable energy

Barriers

High costs and project complexity are barriers to building owners pursuing building upgrade projects.

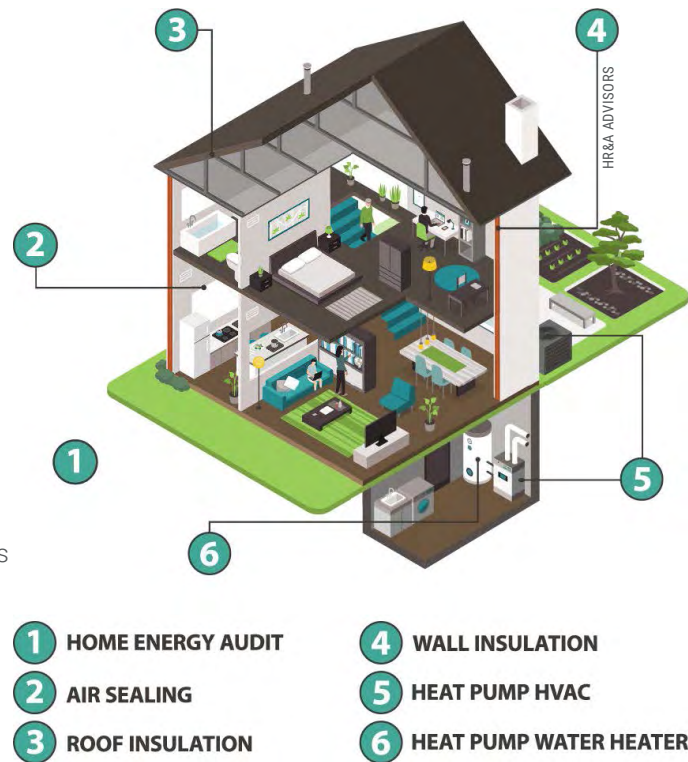
- Upfront investment costs
- Unclear payback
- Lack of familiarity
- Lack of priority

Trigger Events

Building owners do not naturally pursue upgrade work. To support building programs, it is important to understand the “trigger events” in building lifecycles and ensure support is designed to meet these moments.

Financing

- Mortgage refinancing
- New purchase
- High vacancies



Quality

- A/C or heater replacement
- Roof failure
- Replace the water heating system

Subsidy

- End of LIHTC contract
- Renewal of Housing Assistance Program (HAP) contract

Resilient and sustainable homes and buildings perform at a high level. The structures are energy efficient, able to withstand the stressors and pressures of a warming climate, and promote the safety, health, and well-being of occupants within. These same buildings can also meet affordability goals, which, when combined with resilience will create healthy affordable living environments for anyone, regardless of income.

Energy efficiency measures also reduce further climate impacts. From low-carbon emitting building materials to air handling systems that require less energy, there are ever-evolving and improving materials and processes that will reduce energy consumption, and with it, the often-harmful byproducts of traditional energy production will lessen over time and curtail additional future negative impacts to the environment.

Homes that are built to be resilient create environments that support the resilience of building occupants. Residents who live in safe, healthy, and more financially attainable homes will be better positioned during extreme weather events to not only survive but to continue to thrive in homes that remain affordable.

Retrofitting Existing Homes

The repair or refurbishment of an existing home is often a highly sustainable choice. By reusing the structure and materials within, and not sending a demolished home's materials to the landfill, some level of sustainability is

achieved—but more will be required. An early assessment or modeling of the home's existing energy usage and systems can be used to understand the baseline conditions and identify areas for investment and improvement. This assessment should come with an associated cost analysis to provide a complete picture of the potential costs and benefits of the resilience and sustainability improvements.

The advances in building materials and technology are staggering, with new products coming online every day. Using these materials, processes, and technologies effectively hinges on an integrated and thoughtful design strategy. From the building envelope to the controls on the thermostat, there are a variety of places where sustainability and resilience should be factored into home repairs. The following are several foundational elements where new technologies can have a measurable impact on energy use:

- Building envelope modifications include energy-efficient insulation, air tightness measures, and incorporating passive cooling through windows, attic fans, etc.
- Upgrades to HVAC systems, domestic hot water, and appliances, including heat pumps, heat pump water heaters, and energy-efficient appliances should be used.
- Ventilation improvements assist with low-energy cooling through the use of operable windows, screens, doors, and fans.
- Smart controls should be installed to regulate indoor air temperature for maximum efficiency and programmed around anticipated home use or occupancy.
- Make-ready work, such as panel upgrades, wiring upgrades, and mold and asbestos mitigation.
- On-site renewables should also be considered yet may come with some additional building modification needs, as in the case of structural upgrades needed to support a rooftop solar installation.

Each of the measures noted can reduce the long-term utility burdens associated with the home. And many products, particularly when paired with existing rebates, can also be cost-effective selections at the outset. Homes that are constructed without these measures today will at some point in the future require retrofitting, which will be a costly and disruptive scenario later.

Case Studies

Residential Energy Preparation Services (REPS)

The Connecticut Department of Energy and Environmental Protection launched a program to remove health and safety barriers (asbestos, mold, knob-and-tube, etc.) to enable weatherization work for income-eligible households. Weatherization is key to maintaining comfortable living conditions while keeping energy bills low. However, too many households across the state are prevented from weatherizing their homes due to health and safety barriers.

Income-eligible households who have already been deferred by the state-managed Weatherization Assistance Program or utility-managed programs will have barriers addressed before receiving energy efficiency improvements.

Funding comes from a variety of state resources as well as the Low Income Home Energy Assistance Program funds and the American Rescue Plan Act. Funding for this weatherization barrier remediation program may cover the costs for some or all health and safety improvements.

REPS uses project criteria, such as total and average cost per unit to determine which remediation jobs can be covered by the program, and only remediation measures covered by the program are eligible (e.g., roof replacements are not covered by this program).

WindowDressers, New England

WindowDressers brings community volunteers of all economic and social situations together to improve the warmth and comfort of interior spaces, lower heating costs, and reduce carbon dioxide pollution by producing low-cost insulating window inserts that function as custom, interior-mounted storm windows.

The nonprofit organization uses a Community Build model where each volunteer has been trained to complete one piece of the window assembly. Like an old-fashioned barn raising

or quilting circle, the community comes together, each contributing in their own way, to create a larger impact.

The program achieved multiple benefits, including:

- » Improving the warmth and comfort of community neighbors
- » Lowering heating costs for families receiving the inserts
- » Providing skills training for community members.



Our volunteers build
insulating window inserts!

Need custom Inserts made?
Request Inserts here!



Funding Opportunities

Funding Approaches

Funding sources. There are a number of different funding sources that can support this work and for which governments, nonprofits, and households are eligible to apply.

- Government (federal, state, and local)
- Utilities
- Philanthropic organizations
- Non-profit organizations (CDFIs)
- Commercial financing (banks and private investors)

Considerations. Prior to assembling an application, teams should consider the funding opportunity attributes against its return on investment.

- Funding amount. Does the grant offer a significant funding amount?
- Allowable uses. Can you fund the type of work you are focused on?
- Competitive positioning. How competitive is the grant? Is there a limit on applications per jurisdiction?
- Funding timeline. What is the timeline for receiving funding? Are payments direct, advance, or reimbursable?
- Compliance costs. What are the reporting requirements?

Preparing for a successful application. The path from locating funding to successfully applying requires a strong coalition with a shared vision, clear strategy, and capacity to execute. Successful applications benefit from the following:

- A strong partnership with a shared vision.
- Clearly defined problem and strategy.
- A clear request and capacity to execute.

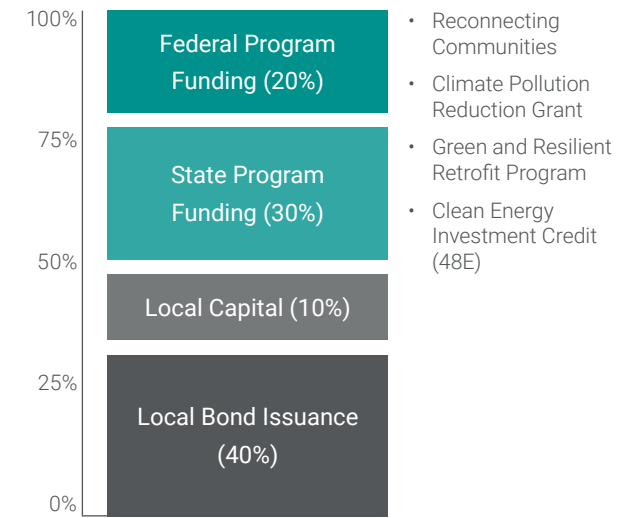
New source to stack funding. Many existing and new funding programs allow for multiple sources to be brought together or “stacked.” This allows applicants to think creatively about how to fill any remaining funding gaps.

Governmental funding opportunities may be understood across several categories:

Longstanding Opportunity All funding from federal agencies that is issued and allocated annually.		New Opportunity Federal funding specifically from recent landmark legislation promoting infrastructure and related programs.	
Competitive Funds Awarded through a competitive process using applications reviewed by evaluators.		Formula Funds Awarded to predetermined recipients using a mathematical formula.	
Federal Government Administrators Federal agency administers funding directly to applicants.		State or Municipality Administrators Federal agencies allocate funding to a state agency or municipality for them to administer.	
Planning Funds Funds research, feasibility studies, needs assessments, plans, and proposals for projects.	Capital Funds Funds acquisition, construction, renovation, or expansion of physical assets or infrastructure.	Operating Funds Funds operation and maintenance of project or program.	

Source: HR&A

Example Stacking Opportunities



Source: NUMO



Messaging Climate Readiness

Communicating Resilience

The ability to communicate the benefits of resilience and climate readiness is important—homeowners, partners, and potential funders need to understand the benefits of resilient home repair to help make the case for upfront investments in materials, technology, and/or processes.

While many HRN members noted that some of their methods and materials support energy efficiency, promoting that fact and helping homeowners understand the related benefits has taken a back seat to other pressing work.

HRN, its member organizations, and clients will benefit from a focus on messaging that identifies the specific benefits of using sustainable and resilient methods and materials and is encouraged to seek expert assistance in this area.

In the meantime, ULI provides the following definitions to help HRN members begin to fold these concepts into their work with community members.

Resilient housing is safe and strong housing that is designed to allow occupants to weather stressors and shocks (typically environmental or weather-related) and not only survive the event but to carry on and also thrive.

Sustainable housing is housing that provides its occupants with an energy-efficient and healthy environment. Sustainable homes are built with high-quality, high-performing materials and systems that withstand the test of time and continue to support the health and well-being of the residents within.

CLEAN, EFFICIENT, AFFORDABLE

energy as a tool for impact

ECONOMIC development

Projects that move the needle on carbon reduction are bringing established companies, investors and entrepreneurs to the city.

CREATING jobs

Statewide, the number of clean energy jobs already outpaces the number of fossil fuel jobs.

ALLEVIATING poverty

Reducing the energy burden for Philadelphians means homes that are safe, warm, healthy and affordable for the long term.

IMPROVING public health

In public buildings, schools, homes and businesses, clean and efficient energy is a vehicle for improving the health of our communities.

The Philadelphia Energy Authority uses this graphic to help detail how efforts to reduce energy consumption can positively impact economic development, job creation, poverty reduction, and public health improvements.

