2. Filling Gaps in Funding and Financing for Energy Efficiency Retrofits in Rental Housing

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Introduction

Energy efficiency retrofits are often necessary to reduce both high energy burdens for renters and the greenhouse gas emissions from the targeted properties. However, rental property owners can face challenges in securing funding or financing options to make energy-efficient upgrades. Local governments and community-based organizations (CBOs) can assist in the uptake of rental housing retrofits by connecting property owners to funding and financing opportunities, and to existing financial products; they can also fill gaps in current funding options by creating new offerings when resources allow. In this toolkit, we provide an overview of common obstacles to energy efficiency financing and funding, considerations for addressing these obstacles, and funding- and financing-related strategies that local stakeholders can use to increase energy efficiency retrofits of rental housing in their communities.

Common Energy Efficiency Funding and Financing Obstacles

Owners of affordable housing properties may face several obstacles to energy efficiency retrofits. Table 1 provides information on some of these obstacles.

Table 1. List of obstacles to energy efficiency financing and funding

Obstacle	Description
Lack of awareness or knowledge	Owners may not know the full range of options available to them, or they may not understand or trust the benefits of energy efficiency upgrades.
Lack of resources	Owners of affordable rental housing may lack dedicated property management staff, staff with energy efficiency experience, the time and capacity to plan upgrades, or upfront capital to invest in building upgrades (Samarripas and York 2019). Further, building owners often have competing priorities, including routine maintenance and repairs, which can take precedence over energy efficiency upgrades.

Obstacle	Description
Deferred maintenance	Deferred maintenance is the result of years of neglected housing maintenance and repairs, often leaving the property in need of health, safety, and structural repairs. Owners of affordable housing properties must address these repairs before energy efficiency upgrades can take place. Deferred maintenance can cause some properties to be turned away from energy efficiency programs, such as the Weatherization Assistance Program (NASCSP 2022). As a result, little funding remains for energy efficiency once the issues are addressed.
Split incentives	Renters are often responsible for paying their own energy bills and can benefit from energy efficiency improvements that reduce these bills. Split incentives arise, however, because building owners—who often cover the cost of efficiency and maintenance upgrades—do not receive direct financial benefits in these cases, yet they still must repay the investments, such as loans. As a result, property owners are less inclined to pay for these improvements (Samarripas and York 2019).

The following section describes strategies that local governments can use to overcome these obstacles.

Strategies for Addressing Funding and Financing Obstacles

Local governments interested in addressing the funding and financing obstacles associated with energy efficiency upgrades in rental housing should investigate gaps in both current offerings (e.g., from utility, private, local, state, and federal programs) and expertise in their local context. As the following sections describe, we identified three steps that local governments can take to better fill these gaps (see figure 1).

Figure 1. Steps local governments can take to fill gaps in financing and funding for energy efficiency

IDENTIFY GAPS IN OFFERINGS AND EXPERTISE

Some communities lack comprehensive financing resources or funding opportunities that serve the targeted neighborhoods, buildings, or customer types. To identify current gaps, local governments should first take stock of the existing funding and financing opportunities for rental properties. They should then assess whether these options address their overall goals for the rental housing stock. Next, they can identify barriers faced by financial lenders and their customers (i.e., property owners and renters). To guide this investigation and assessment process, we suggest answering several key questions:

- What are your community's goals for increasing energy efficiency in your rental housing stock?
- What financing or funding offerings currently exist in your community for rental properties—and particularly for naturally occurring affordable housing (NOAH)?
- Which market segments (e.g., townhomes, large apartment buildings, subsidized or unsubsidized properties, and master-metered properties) do the current offerings serve?
- Is there a diverse resource pool of finance providers and products?
- Do building owners use the available offerings?
- What challenges do building owners face when trying to access funding or financing for energy efficiency retrofits?
- What challenges do lenders face when serving rental properties?
- Do lenders recognize the value of energy efficiency upgrades in rental properties?
- Do educational resources exist for building owners and lenders? If so, do stakeholders use and value the existing resources?
- Who is most impacted by high energy costs and insufficient housing? How do current offerings reach these communities, and how will new offerings reach them?

IDENTIFY INTERNAL CAPACITY

After answering the questions above and identifying gaps in their community, local governments should consider their own goals and the capacity and resources they can commit to supporting increased energy efficiency funding and financing for rental properties. Following is a list of our suggested questions for local governments:

- What are your goals (e.g., reduce energy burdens, decarbonization, stabilizing owner operating costs)?
- What are the gaps that must be filled to achieve these goals?
- How much staff time or financial support can you commit to community engagement to help identify additional gaps?
- How much staff time or financial support can you commit to addressing gaps under current resource constraints?
- Can you provide support to existing programs or offerings, make changes to existing programs, or create new programs to close gaps?
- Can you act as a liaison between building owners and existing offerings?

IDENTIFY CITY ROLES

Once local governments have identified the existing gaps in their communities and their internal capacity to commit to addressing these gaps, they can consider the roles that are required and must be filled. There is no one-size-fits-all approach to addressing these issues; local governments might take on one or several roles depending on the initiative. Building on Vanamali's (2018) financing approach for the DC Sustainable Energy Utility, we offer four key roles that local governments or CBOs can fill for funding and financing opportunities (A. Vanamali, director, Winrock International, pers. comm., September 10, 2018):

- **Educators** engage the energy efficiency, affordable/rental housing, and financial communities; build relationships among stakeholders; and develop plans for mobilizing existing resources.
- **Facilitators** reduce customer burden related to seeking financing and funding options and partner with existing programs to facilitate access to offerings.
- **Enhancers** improve the value of existing products by supporting current offerings and develop internal energy efficiency financing expertise.
- **Investors** create strategic partnerships with financial institutions to scale-up offerings and develop innovative financial products.

TOOLS AND STRATEGIES FOR FUNDING AND FINANCING ROLES

In this section, we describe strategies and actions that local governments can take based on the identified gaps, capacity, and roles. Local governments should keep the earlier role-related considerations and resource commitments in mind when examining each opportunity, strategy, and tool. Different roles will be more appropriate or practical depending on local circumstances. For example, local governments with fewer resources may be limited to the connector or facilitator roles, while others may be able to explore the enhancer and investor options.

EDUCATOR

The educator role aims to build relationships by developing a presence in stakeholder communities (e.g., property owner associations, renter associations, energy service providers, community development finance institutions, and CBOs) and to educate stakeholders on the other partners' missions, needs, priorities, and barriers. Educators inform stakeholders and participants of funding and financing opportunities, but they rarely provide hands-on support in implementing programs. Educators should create meaningful relationships with affordable housing developers and owners, energy efficiency organizations, and local financing institutions. They should also inform property owners and developers about existing financial resources—such as the Department of Energy's Weatherization Assistance Program and Financing Navigator; the Department of Housing and Urban Development's Mark-To-Market Program; the Better Buildings Challenge Management Add-On Incentive; and other federal or state funding opportunities (Bamberger 2010). Educators can communicate existing utility offerings as well. Finally, they can inform building owners and financial institutions about energy efficiency's value by providing educational materials or marketing campaigns. Doing so can address and support those property owners who lack familiarity with or knowledge of energy efficiency and its benefits. If a local government has adopted an energy benchmarking or labeling law, educators can also disseminate information about a building's energy performance relative to other buildings.

The City of Boise connects residents and business owners with funding and financing opportunities for energy efficiency projects. Boise's Energy Future Plan website features options for utility rebates and incentives and income-qualified customer assistance programs. It also includes local, state, and federal financing programs and guidance for contacting and applying for each opportunity.

FACILITATOR

Facilitators aim to reduce the burdens on customers seeking financing and funding opportunities. Facilitators should build in-house capacity to analyze and recommend solutions for building owners. This can include creating tools that can help developers understand which programs might be best for them. Facilitators can also partner with existing service providers to offer customers easier access to offerings by integrating financing products or funding opportunities into existing city or utility offerings. Facilitators can promote the use of financing tools such as on-bill financing, which uses both private and public money to pay for energy efficiency projects. As such, customers can use on-bill financing to pay for energy efficiency projects on their property. On-bill financing can also be used as a mechanism to recover utility investment into the property. Further, facilitators can promote the use of savings-backed arrangements, such as energy service agreements in which the service provider predicts a customer's expected energy savings based on a project. The service provider is then paid via the customer's bill savings. Facilitators can promote these types of tools for rental energy efficiency upgrades by partnering with financial institutions and energy utilities.[1]

Boulder County's Partners for a Clean Environment (PACE) program provides business sustainability advisors to business or property owners at no cost. These advisors support property owners by providing technical assistance for energy, waste, water, and transportation projects. PACE advisors also offer financial incentives and recommend personalized financing or funding opportunities.

ENHANCER

Enhancers strive to improve energy efficiency financing's value for customers and lenders by providing additional funding to existing programs. Enhancers may fill the gaps in current

[1] For an example of a city playing this role, see the case study on Minneapolis's Pay As You Save (PAYS) program at the end of this section.

offerings from external partners, such as funding predevelopment loans, interest rate buy-downs, and loan loss reserves. Predevelopment loans are bridge loans that can help property owners complete both energy efficiency and rehabilitation work. These loans can serve as important tools to cover costs for predevelopment work such as assessments or engineering fees so rental owners can take advantage of other energy efficiency incentive offerings that do not cover predevelopment work. Enhancers should also develop in-house expertise and understanding of the need for more innovative energy efficiency financing options by forming a specialized financing team.

New York City Energy Efficiency Corporation (NYCEEC) offers the Green Predevelopment Loan to support the NYC Housing Preservation and Development (HPD) Green Housing Preservation Program, which provides loans for energy and water efficiency upgrades in multifamily properties. NYCEEC's loan program closes a financing gap for affordable housing property owners by covering costs associated with the predevelopment phase of construction and renovations, such as integrated physical needs assessments, energy audits, and cost-benefit analyses. The loan allows affordable housing property owners to take advantage of HPD's offerings and increase their buildings' energy efficiency, while also helping the city protect affordable housing units.

INVESTOR

Investors often fill the largest, most specific gaps by creating and paying for innovative programs or partnerships. Investors can develop financing or funding offerings that reach targeted customers, such as rental housing property owners. They also fund housing and retrofit opportunities that require local government policy support, such as funding land trusts and affordable housing trust funds, acquiring buildings to rehabilitate, and supporting tenant opportunities to purchase policies. To scale-up successful strategies, investors can create strategic partnerships with financial institutions.

St. Louis invests in neighborhood stabilization through its Housing Trust Fund. The fund awards loans and grants for the preservation and development of affordable housing, including construction, rehabilitation, and rental and utility assistance. The fund includes opportunities for investment in energy-efficient home repairs for developers without access to capital, helping to ensure that units remain livable and affordable. As a part of the St. Louis Moving Transit Forward plan, the fund prioritizes affordable housing development projects that are situated within a half mile of a light rail station or bus lines with frequent service.

Case Study: Minneapolis Facilitates a Proposal for a Pay As You Save® Program

QUICK FACTS

STAFFING: 0.15 TO 0.25 FULL-TIME EQUIVALENT EMPLOYEES | ESTIMATED AVERAGE PER-UNIT COSTS: $5,000 (FOR INSULATION AND AIR SEALING ONLY)

PROGRAM BACKGROUND AND DESCRIPTION

In 2018, Minneapolis found that 75% of homes in the city were poorly insulated, and that many of the buildings were built before insulation was required. The city then commissioned a technical analysis to understand how to address this problem. The resulting report found that it could leverage inclusive financing—particularly the Pay As You Save® system (PAYS)—to encourage insulation, air sealing, and other upgrades depending on cost and savings. This goal is important; insulation is critical to energy efficiency but is often left out of retrofits due to costs. PAYS can address this problem.

PAYS program models are unique in that they can reach renters and hard-to-reach households. Using PAYS, the utility is responsible for capitalizing and supervising installation of the upgrades, helping extend the impact of local governments' limited energy efficiency funds. Utilities recover their investment under the tariff's terms via a fixed charge on the utility bill for each upgraded location; the charge is capped at 80% of the estimated annual savings spread evenly across the months. The model also avoids the landlord–renter split incentive because the utility covers all or most of the upfront cost, and the renters' energy savings support the cost-recovery fees. Both property owners and renters must agree to the upgrade, and the charge stays with the metered location rather than the resident. The 80% rule is designed to keep the renter's total energy costs at or below pre-upgrade levels based on stable usage patterns. When a renter vacates the unit, their payment obligation for utility services ends. Both the property owners and the utility must notify the successor renter about the improvements and the tariffed charge. Should the property owner fail to do so, the renter has the right to break the lease with no penalties. Successor renters benefit from the improvements and savings, and they continue paying the tariffed charge until the utility's cost recovery is complete. PAYS program modeling also allows renters to tap into their utility or state energy efficiency programs funding, which renters have historically paid into but have been unable to access.

Recent tariffs for PAYS programs require that program applicants be informed of their possible eligibility for no-cost weatherization services for income-eligible households. This empowers people to decide whether to pursue free weatherization services before committing to similar or additional upgrades available through the inclusive utility investment program. Then, property owners can opt into an energy assessment. A program operator retained by the utility will review the assessment and determine if the home is investment grade—that is, it has no deferred maintenance or health and safety issues that must be resolved first to ensure the building will still be serving its purpose in 10 years. If so, the program operator will determine the amount of investment that can be supported by cash flow from an optimal package of energy upgrades. The property owner and renter will then receive an upgrade offer, which may require an upfront co-payment, depending on the estimated savings. If they accept the offer, the building owner and renter each sign a participant agreement; the program operator then refers the job and the scope of work to a qualified participating contractor. To ensure that the upgrades have been completed, the program operator performs quality assurance before authorizing utility payment to the contractor.

STAKEHOLDERS AND ENGAGEMENT

Community residents approached the city and encouraged it to pursue the PAYS program because it would include renters and other residents that other programs have been unable to reach at scale. The city then partnered with community leaders to create a working group that considered various options before resolving with city utilities to establish a PAYS program. A key recommendation by the resident working group was to require the program operator to provide all applicants with information on income-eligible services—such as Weatherization Assistance Program funding—that may be available at no cost to qualifying customers. This provision ensured that under-resourced households would better understand their energy upgrade options before entering into an agreement to pay for upgrades that they might be able to receive for free.

SUCCESSES

Minneapolis is pursuing an inclusive financing pilot program that aims to include both large and small rental housing. In addition to improving housing and energy affordability, and overcoming the split incentive issues, the city expects to add more local jobs, improve economic development, and facilitate more equitable outcomes between renters and homeowners. The program is also the only known solution the city has encountered that could scale to serve the tens of thousands of homes in need of insulation upgrades, which is an essential requirement for achieving the city's climate equity goals in a cost-effective way.

CHALLENGES AND LESSONS LEARNED

Minneapolis is decarbonizing through electrification, and it originally planned to establish the PAYS program in partnership with both its electric utility (Xcel Energy) and its gas utility (CenterPoint Energy). However, the city's gas utility was the only willing partner, so the project moved forward with CenterPoint Energy alone. When both electric and gas utilities participate, more households will be eligible.

Another challenge is that, instead of the more standard 16-year cost recovery period, the city chose to pilot a 12-year cost recovery period, even though the useful life of some upgrades is 20 years. The 12-year term will make it more difficult to pass the 80% rule noted above, which is a key PAYS consumer protection feature to ensure that customers implement cost-effective upgrades. Given the shorter cost recovery term, more households will have a co-pay requirement to be eligible to participate, although other incentives could eliminate those remaining upfront costs.

Case Study: DC Housing Production Trust Fund

QUICK FACTS

STAFFING: 79.6 FULL-TIME EQUIVALENT EMPLOYEES | BUDGET: $400 MILLION | FUNDING: GENERAL FUND AND AMERICAN RESCUE PLAN ACT FUNDING

PROGRAM BACKGROUND AND DESCRIPTION

The Housing Production Trust Fund (HPTF) was launched in 1988 with the goal of producing affordable housing. Originally, the fund was financed using 15% of revenues from deed recordation and transfer taxes; however, the current Washington, DC, mayor has committed $100 million to the fund every year, using the general fund to reach this threshold when necessary.[2] The extra financial commitment has been transformational, and the city has experienced an increase in affordable housing units being constructed or rehabilitated. Because Washington, DC, is also able to allocate federal Low Income Housing Tax Credits (LIHTC) (with a few exceptions, this is a role reserved for state governments), it can require or incentivize properties seeking tax credits to achieve policy objectives related to energy and climate. Still, the way in which DC provides funding for affordable housing offers lessons for other cities, which can use similar strategies for local housing trust funds and other competitive funding mechanisms.

Each year, DC publishes a qualified allocation plan, which outlines the requirements that projects seeking housing LIHTC and HPTF funding must meet—and scoring points they can earn—to be selected for project funding.

One way that DC achieves its affordable housing goals through the HPTF is in how it structures the scoring matrix in its qualified allocation plan.[3] It also revised this scoring matrix to align with the goals and findings of the DC Housing Equity Report. The scoring matrix consists of four main areas, and projects can score up to 100 points in total. However, within each scoring area, projects can score upward of 50 points. This allows developers to submit the best possible version of a project. Further, the scoring matrix awards points for location, access to amenities, projects that provide housing to seniors and those with

[2] For more information on the general fund, see: https://code.dccouncil.us/us/dc/council/code/sections/47-131.

[3] While Washington, DC, is able to operate as a state in developing a qualified allocation plan (QAP), other cities can still learn from its (and other states') approach to QAPs. For an analysis of QAP strategies specific to energy efficiency, see Bartolomei's (2020) report: *State Strategies to Increase Energy Efficiency in Low Income Housing Tax Credit Properties.*

disabilities, and minority- and/or woman-owner enterprise participation. It also awards points for preserving covenanted or naturally occurring affordable housing.

DC also restructured the HPTF to align with its Clean Energy Omnibus Act, which established building performance standards (BPS).[4] The fund requires new projects to be at or near zero net energy and use the Enterprise Green Communities Plus (EGCP) standard (a more stringent version of the basic EGCP standard). The fund is also forward-thinking regarding BPS compliance cycles.

Lastly, the HPTF interacts with DC's affordable housing preservation policies via its Tenant Opportunity to Purchase Act (TOPA). Developers of projects with existing units must verify how the project satisfies TOPA, thereby providing a pathway for the project to result in permanent affordable housing. Additionally, renters have the option to purchase their building or assign their rights to a developer. Most projects are assigned, which allows developers to then apply for HPTF and/or LIHTC to complete any renovations. Furthermore, renters that purchase their building usually do so through a limited equity cooperative. Those cooperatives can also apply directly for HPTF and complete their own renovations, but they are not eligible for LIHTC.

STAKEHOLDERS AND ENGAGEMENT

Washington, DC, requires community engagement at both the fund level (when designing the qualified allocation plan) and the project level (after projects have been awarded funds). At both levels, stakeholders overlap; they include developers, renters, and the broader community. Further, DC requires projects receiving funding to submit a community engagement plan. Local Advisory Neighborhood Commissions are also notified of any pending funding provided by the Department of Housing and Community Development. As a result, renters have the greatest potential to affect the fund's implementation at the project level.

SUCCESSES

Since 2015, the HPTF has resulted in the creation of 9,000 affordable housing units. An additional HPTF benefit is that it allows DC to support a market of developers newly willing to pursue affordable housing projects by incentivizing and attracting those who have not previously worked in this area.

[4] According to Nadel and Hinge (2020), building performance standards requires "existing buildings to meet some performance benchmark (energy or carbon intensity, performance rating, and so on), with owners having multiple years to bring buildings into compliance."

CHALLENGES AND LESSONS LEARNED

The HPTF often experiences a conflict between its goals and a city's market conditions. Say, for example, the HPTF seeks to create more affordable housing within Ward 3, the city's wealthiest ward. However, given that ward's property prices, developers rarely submit projects in the area. Further, it can be difficult for the HPTF to align with BPS, as HPTF operates on a 15- to 18-year compliance cycle and BPS operates on a 6-year compliance cycle. Lastly, the city's BPS applies to buildings as small as 10,000 square feet, while the HPTF encourages examination of the expected performance of HPTF-funded projects of such a size to help policymakers determine the need for those projects.

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