EnergyFit Toolkit

A Home Energy Upgrade Playbook for Communities

PRATT CENTER FOR COMMUNITY DEVELOPMENT

About Pratt Center for Community Development

Pratt Center for Community Development works to build community power and ensure the equitable distribution of resources for low-income BIPOC people in New York City. We do this by partnering with frontline community organizations to provide research, participatory planning, policy advocacy, and implementation support.

Acknowledgments

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Thank You to Our Supporters

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- **Office of Congressman Hakeem Jeffries**
- **11th Hour Foundation**

Introduction to the Toolkit

At Pratt Center for Community Development, we have spent over a decade studying, testing, refining, and implementing EnergyFit—a one-stop retrofit program that makes homes more healthy, safe, comfortable, and energy efficient.

Across the country, millions of working class families struggle with high energy costs while living in homes that run on fossil fuels. Many of these households, especially in low-income and environmental justice communities, live in aging buildings that lack up-to date electrical systems and have deferred maintenance issues. These homes can be too cold in the winter and too hot in the summer, with unhealthy indoor air quality that can cause asthma or worse.

These challenges can be overwhelming, and addressing them requires a holistic, community-driven approach. That means understanding the unique barriers to energy efficiency and decarbonization that your community faces, and helping families navigate complex processes and securing funding.

It requires hands-on support, with trusted community organizations working side-by-side with residents to ensure they get the resources they need. With these changes, EnergyFit families have shared that they now experience a renewed sense of security and comfort, while also benefiting from lower utility bills and increased home value.

A key feature of EnergyFit is its community-first approach. Pratt Center co-designed the program with trusted community-based organizations (CBOs), technical assistance providers, and local contractors. This collaboration helps us better address hyper-local challenges, earn the community's trust, and ensure the program is as effective and impactful as possible.

Data-driven strategies played a crucial role in helping us design the program. By collecting and analyzing both qualitative and quantitative data, your organization can better assess the costs and benefits of electrification for lower-income households, identify financial and logistical barriers, and refine your approach. The clean energy transition should be accessible to everyone. With the right strategies, resources, and partnerships, your program can secure a healthier, more sustainable future for your community.

We didn't build EnergyFit overnight. It took years of testing, learning, and refining to get it right. But we know there's no time to waste—our communities and our planet need effective solutions now.

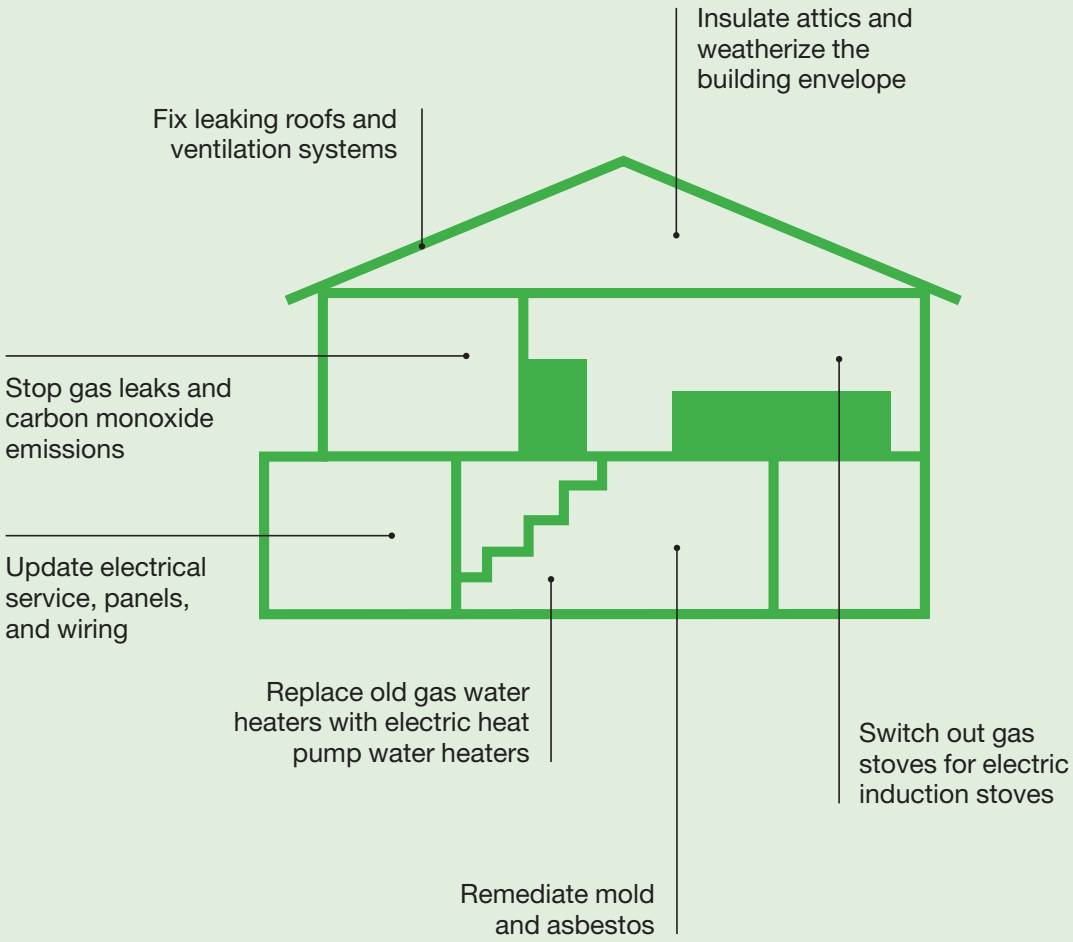
This toolkit is designed to help you set up an energy retrofit program for your community faster, with fewer roadblocks and hopefully with even greater impact. The toolkit offers:

- A step-by-step framework to help you launch and scale your own EnergyFit-inspired retrofit program
- Practical guidance on common challenges, leveraging funding opportunities, and making home energy improvements as simple and effective as possible
- A view into our learnings and program models that integrates home repairs, energy efficiency, and electrification into a one-stop shop solution

The primary objective of this toolkit is to help your organization design an equity-centered program that will:

- Meet the unique needs of low- and moderate-income households in your community
- Provide a community-led effort to make decarbonization more accessible and effective
- Help homeowners navigate the many complexities of funding streams, financial assistance, and managing multiple contractors
- Transition your community off fossil fuels
- Reduce greenhouse gas emissions
- Improve indoor air quality of homes, leading to better health outcomes
- Ensure all communities can access clean energy solutions

Energyfit has helped households:



Explaining Decarbonization

1. What is decarbonization?

Decarbonization is the process of stopping the use of fossil fuels (such as gas, oil, and coal) in order to eliminate the damaging byproducts of these energy sources.

Specifically, the focus is on reducing CO2 (carbon dioxide) and methane emissions, which are the main causes of climate change. However, other toxic pollutants are also eliminated, including fine particulate matter, nitrogen oxides, mercury, carbon monoxide and more. All of these pollutants have a serious impact on human beings' health and our planet's wellbeing.

2. What does it mean to decarbonize housing?

In this toolkit, decarbonizing housing means making homes more energy efficient to reduce its overall use of energy, while implementing the necessary upgrades and appliance transitions that will move towards full electrification, and off of fossil fuels.

Note: Electrifying a home reduces fossil fuel use on-site, but the overall pollution impact depends on how your electricity is generated. If your utility relies on gas or coal–fired power plants, electricity use still contributes to pollution. Electrification delivers the greatest climate benefits when paired with clean energy sources, such as solar, wind, hydropower, or nuclear. Adding on-site solar and battery storage can further reduce emissions when feasible.

3. How does decarbonization help struggling households?

- **Reduces indoor air pollutants that cause asthma, heart disease, and other chronic illnesses**
- **Reduces energy usage, leading to reduced utility bill costs**
- **Eliminates utility costs related to maintaining gas equipment**
- **Enables fixes of unknown health and safety hazards in the home**
- **Improves general household comfort**
- **Improves home value**

4. What tools can be used to decarbonize housing?

Energy Efficiency

Reducing energy consumption while maintaining or improving performance through updated technology and best practices.

Insulation materials that slow heat transfer, keeping buildings warmer in winter and cooler in summer.

High-performance windows and doors designed with advanced materials to reduce heat loss and improve insulation.

Smart thermostats and energy monitoring devices that automate temperature control and track energy usage for greater efficiency.

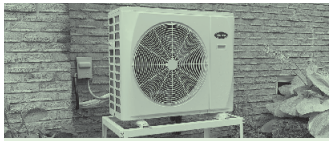
Air sealing and weatherization or finding and sealing holes that leak heated or cooled air to improve energy efficiency and comfort.

Low-cost direct install efficiency measures include LED light bulbs, low-flow faucet aerators and showerheads, door sweeps, and power strips.

EnergySTAR appliances are more energy efficient than standard appliances, meeting EPA guidelines while saving money on utility bills and reducing carbon emissions.

Electrification

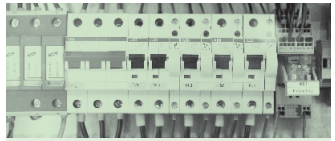
Switching home systems such as heating, cooking, and hot water from fossil fuels (including gas, oil, or propane) to electric alternatives that can be powered by renewable energy.



Heat pumps for heating and cooling are electric systems that transfer heat in or out of a home to provide both heating and air conditioning. They use far less energy than traditional furnaces, boilers or air conditioners.

Heat pump water heaters that use electricity to move heat from the air to warm water, rather than generating heat directly. They are highly efficient and significantly cut energy use.

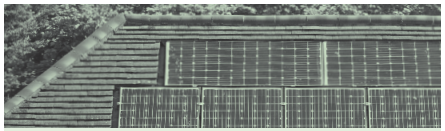
Induction stoves use electromagnetism to heat cookware directly, making them faster and safer than gas. Switching to electric appliances reduces indoor air pollution and supports electrification goals.



Upgrading electrical panels and wiring to support new electric systems and effectively manage energy use. Upgrades are often needed when installing heat pumps or induction stoves.

Renewables

Energy sources like solar or wind that are naturally replenished and produce no emissions during use.



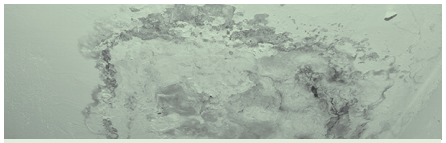
Solar panels convert sunlight into electricity to power homes, reducing utility bills and carbon emissions. Systems can be installed on rooftops or nearby land.

Battery systems store energy from solar panels or the grid for use during outages or when electricity costs more, improving home energy resilience.

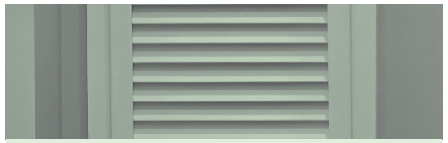
Community solar programs that let households use solar energy without installing panels at home. Participants get utility bill credits for their share of the solar farm's energy production.

Health & Safety/ Home Repairs

Improvements to ensure a safe, livable environment and support energy upgrades. Health and safety issues must always be taken care of *before* implementing energy efficiency measures to ensure that any air sealing does not worsen existing health or safety issues.

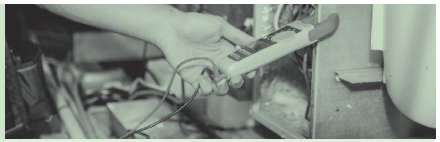


Mold is fungus that grows in damp areas and can cause respiratory issues. It must be addressed before insulation and air sealing work.



Improperly installed ventilation systems can cause mold and air quality problems. Proper ventilation, especially in the bathroom and kitchen, is essential when air sealing a home.

Gas leaks occur more often than most households realize. Leaking natural gas poses huge safety risks including blowing up! Detecting and fixing gas leaks is essential before electrifying home systems.



Regular fossil fuel equipment maintenance and checks on oil or gas systems to ensure safety and performance until replaced with electric alternatives. This includes gas stoves, boilers, water heaters and furnaces.

Roof repairs and structural or water damage fixes to prepare for energy upgrades like insulation or solar panels.

Carbon monoxide and smoke detectors are a must. These alert households to imminent health risks related to improperly functioning fossil fuel equipment or fires.

5. Decarbonization tools and resources

- Rocky Mountain Institute: Green Upgrade Calculator
- ACEEE: State Scorecard Rank
- ACEEE: Building Decarbonization Solutions for the Affordable Housing Sector
- NREL: Community Planning for Solar
- Good Homes Alliance: Net Zero Carbon Toolkit
- Rewiring America: Go Electric
- Clean Energy States Alliance: Directory of State LMI Clean Energy Programs

Funding the Work

1. How can your organization fund this work?

Low-income and vulnerable households are rarely able to afford the efficiency and electrification measures we discussed in chapter two. This section will help you identify and combine multiple funding sources to design a **financially feasible housing decarbonization program**, so you can help these households retrofit their homes—for free or at a low cost.

We'll look specifically at a method called "Stacking Funding" to understand how to build a sustainable program. But first, we'll take a look at what funding sources may be available to you.

2. Where's the money?

A. Foundations and Other Private Funders
Banks and private individual foundations, community trusts, faith-based organizations, and mission-driven impact funds may support programs focused on climate, housing or community development.

B. Government Incentives & Tax Credits
Federal, state and local governments may have incentives, rebates, or free services to cover energy audits, weatherization, heat pumps, solar panels, and more in your community. The status of these programs changes often, so verify what's still available with your team.

Federal Programs

Federal government provides a variety of resources through the Department of Energy, IRS and Environmental Protection Agency and more. These include the Weatherization Assistance Program (WAP), Home Energy Affordability Program (HEAP), Inflation Reduction Act (on hold/check with your state), tax credits for solar, energy efficiency,and EnergyStar rebates.

State Programs

State Energy offices offer technical assistance, financial incentives, and policy resources. Certain states offer more resources than others, with Mass Save, Efficiency Maine, NYSERDA Empower+, California ESA, Energy Trust of Oregon as strong examples. States may also offer tax incentives or rebates.

Local programs

Certain cities and towns offer financial resources such as Philadelphia's Built to Last and Vermont's HeatSquad.

C. Utility Programs
Local electric and gas utilities offer rebate programs to help you lower your energy bills. These can include discounts on efficient appliances, free energy audits, or cash back for installing things like heat pumps or insulation. Some have community funds that they grant to local projects, such as Con Edison in New York City.

D. Loan Products

Community Lenders

Some mission-driven lenders, called Community Development Financial Institutions (CDFI), offer special loans to help low-income homeowners and small landlords make energy upgrades. These loans are designed to be more flexible than regular bank loans and can often be combined with grants or rebates.

Green Banks

Green banks are public or nonprofit institutions that help fund clean energy projects. They can provide low-cost loans or help cover upfront costs for nonprofits and affordable housing providers.

Special Energy Loan Funds

In some areas, utilities or nonprofit partners offer low- or no-interest loans to help families make repairs and upgrades. These often work alongside weatherization or rebate programs and help fill in the gaps when grant money isn't enough. We recommend researching what might be available to your local community.

What does stacking incentives mean?

Stacking incentives means combining multiple funding sources to fully cover the cost of a clean energy project. This is particularly important for households and organizations that can't pay out of pocket.

EnergyFit uses the stacking method to cover 100% of our client's costs. We do this because, as a nonprofit, we don't have excess funding to pay for work and the participants are all low-income and working class households without expendable resources.

For our project we use a mix of:

- **Federal Community Project Funding** won through our congressional representative (otherwise known as an earmark)
- **New York State energy efficiency incentives**
- **National and local foundation grants** from organizations committed to supporting housing and climate action

Talk with your local government representatives! Federal, state or municipal representatives often have funding available for their local communities. Applications or requests for funding typically align with your locality's budgetary cycle.

3. Funding tools and resources

Government Funding

The following resources can help you identify what incentives are available in your community.

- National: Database of State Incentives for Renewables & Efficiency
- U.S. Dept. of Energy: Clean Energy Funding Opportunity Exchange
- US State Energy Offices Sustainable Libraries Initiative

Private Funding

- Clean Air Task Force: Federal Funding for Clean Energy Deployment
- Environmental Defense Inc: The Environmental Justice Grant Program
- Rockefeller Brothers Fund: Sustainable Development Grants
- Community Preservation Corporation
- Local Initiatives Support Corporation

Guidance for Writing Funding Proposals

- Wisconsin Dept. of Administration: Tips for Effective Grant Writing
- Environmental Protection Agency: Tips for a Successful Grant Application
- Community Tool Box: Writing a Grant

Program Design

1.

Define Your Program Goals

Create goals that reflect your values, meet community needs, and align with your organization's capacity.

Your program goals define the purpose and intended impact of your decarbonization project. Clear goals help your organization stay focused on what you're trying to change or improve for your community. They serve as a guide for measuring success, and communicating impact to funders, partners, and your community.

A Identify what your community really needs

Your goals should be rooted in the needs and experiences of the people you serve—not just what's easiest to measure or fund.

If you haven't already, connect with your community to create a program model that is responsive to their needs. This can include homeowners, renters, local electeds, housing counseling organizations, and more.

Ask questions such as:

- ☐ What are the biggest housing and energy or repair-related challenges people face?
- ☐ What do they want to improve about their homes or buildings?
- ☐ What local resources do they currently use or know about?
- ☐ What barriers do they face when trying to access existing programs?

B Understand what's actually achievable

Ask questions such as:

- ☐ What are our skills and what is needed to fully meet our goals?
- ☐ Who are our partners and what skills do they bring to the table?
- ☐ Are there available resources to solve the problem?
- ☐ Does any of this work require compliance with local building or zoning codes? If yes, what are they and how do we comply?
- ☐ Not every problem can be solved. What can we actually resolve?

Make sure the project goals align with your organization's mission. Revisiting your mission statement with your broader team is a good way to make sure that this new program fits naturally with your organization's main priorities.

C Create a clear set of goals with quantifiable targets

Your program goals should be clear and specific. Goals should also identify who is the recipient of the outcome, so it's important to avoid vague statements such as "help people with energy efficiency." Use the following guiding questions:

- ☐ Who are you helping?
- ☐ What change do you want to make?
- ☐ How will your program offerings help you meet your goals?

EnergyFit's goals include:

- Help 75 LMI homeowners repair, retrofit and begin to electrify their 2- and 3-family buildings
- Provide $30,000 of work per building
- Replace 150-225 gas stoves with induction stoves
- Outreach to 5,000 buildings

2.

Define Your Eligibility Criteria

Create program eligibility criteria that reflect your mission, funding requirements, and capacity–while prioritizing the households most in need.

Realistically, you will not be able to serve every eligible household in your community (unless, of course, McKenzie Scott just gifted you a whole lot of money!).

Not all households will have the same needs either, and some needs may fall out of scope. That's why we recommend that you define eligibility criteria early, so you have a clear and equitable process ready for accepting program participants.

A Review your program goals

Look at each goal and ask:

- ☐ Who are we trying to reach?
- ☐ Is there a specific type of building that your target participant lives in?
- ☐ Are there specific neighborhoods that have suffered more from disinvestment than others?
- ☐ Are there certain community members that have previously sought help for the problems this project will solve?

Note: *Defining eligibility criteria is an important step of the process that you should be doing in co-design with partner organizations.*

A goal of **EnergyFit** is to help 75 struggling homeowners repair, retrofit, and begin to electrify their 2- and 3-family buildings. From this, our primary targets include: LMI homeowners, residents in 2-3 unit buildings, and households with health and safety repair needs. These buildings were intentionally chosen to ensure that both a homeowner and at least one tenant benefits from the program.

B Determine eligibility criteria for participants

Who are your target participants? Consider:

- ☐ Demographics
- ☐ Income
- ☐ Energy burden
- ☐ Household makeup
- ☐ Distance to polluting infrastructure

Note: Energy burden is the percentage of a person's income that is spent on utility bills. Households that pay more than 3% are considered to be energy burdened and above 6% are severely energy burdened.

EnergyFit's participant focus is households that:

- Include seniors and families with children
- Make less than 130% of the Area Median Income (AMI)
- Include ethnically diverse community members
- Are in underserved areas

C Determine eligibility criteria for buildings

What building characteristics will you use to determine programmatic fit?

These can include:

- ☐ Number of units
- ☐ Type of heating fuel used
- ☐ Type of stove used
- ☐ Location of building
- ☐ Building conditions
- ☐ Year built
- ☐ Type of heating and cooling system

EnergyFit buildings must have:

- Gas stoves that can be changed out for induction
- No major structural repair needs
- Must be located outside of the 100 year flood plain

D Determine strict vs. flexible requirements

- ☐ Which criteria is an absolute necessity?
- ☐ Which criteria is a “nice to have” but not necessarily make or break?
- ☐ Are there paperwork requirements for energy incentive applications?

E Review criteria for fairness and equity

- ☐ Do your requirements unintentionally leave out an at-need population?
- ☐ Do your requirements provide resources to struggling neighborhoods or does it exacerbate gentrification of the community?
- ☐ Do you have a strict protocol for decision making? What is the program’s plan for unexpected situations?

F Create an eligibility cheat sheet

An eligibility cheat sheet is a reference guide so program staff can quickly determine if a household or building qualifies without needing to refer back to long documents. It summarizes key criteria such as income limits, building types, required documents or dis-qualifiers into a simple table or checklist.

Start by listing all eligibility rules from funders and your internal goals, organizing them by category, and use plain language or “yes/no” columns for easy-to-find columns. Review and update regularly as program guidelines change.

3.

Identify Partners for Collaboration

Engage a diverse range of external stakeholders to strengthen your impact.

Even if your organization already has strong community ties, engaging external stakeholders can strenthen your work. This may include contractors, homeowners, tenants, housing counseling organizations, utilities and local community-based organizations.

EnergyFit was co-designed in partnership with Cypress Hills Local Development Corporation and IMPACCT Brooklyn, two HUD housing counseling organizations located in the neighborhoods we serve. EnergyFit's local building performance contractor and electrician were also part of the co-design process. We highly recommend compensating contributors for their feedback, especially residents and small nonprofits.

4.

Create Program Maps and Flow Charts

Map your program's full journey—from recruiting homeowners to evaluating outcomes after the retrofit is complete.

This can be a lengthy process, and laying out each step helps clarify how the program works in practice, who is responsible at each stage, and what information should be shared publicly versus kept internal. Program maps and flow charts make complex processes easier to understand, support consistent implementation, and help identify gaps, redundancies, or points where participants may get stuck. You will also need a simplified version for clients that explains the process clearly while keeping internal details behind the scenes.

A flow chart for your program serves as a visual roadmap that breaks down the full operation, step-by-step. It can help illustrate your client's journey, the decisions they'll need to make, and the roles community partners and other stakeholders will play during each stage.

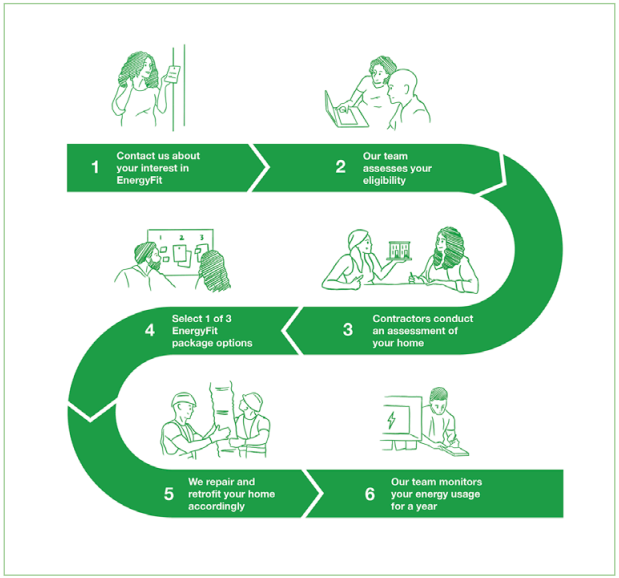
These graphic references can also simplify the program for staff, funders, and stakeholders, and serve as a tool for new team members through each step of your program and when important decisions are made. They can also help uncover areas that could be streamlined, or help you track progress, ensure accountability, and keep your complex program running smoothly.

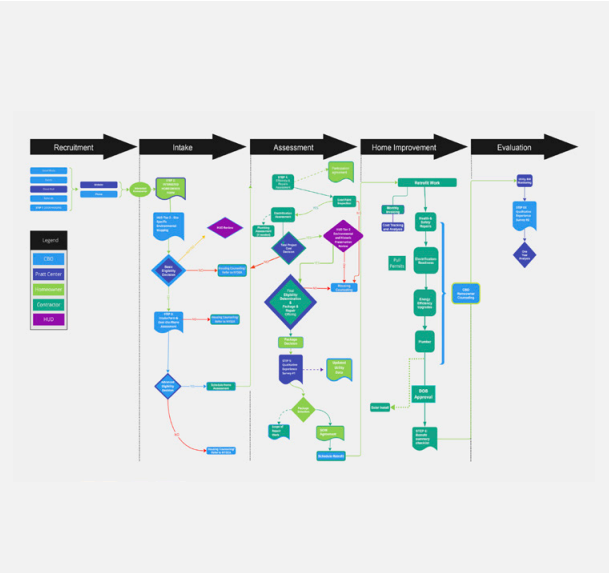
For EnergyFit, we used two maps:

- **A simple, public-facing visual** (see page 19) highlighting program milestones. This visual serves as a reference for clients so they understand the program's stages from beginning to end. A simple version is key to help clients feel engaged without having too digest too much information.

- **A complex, staff-facing flow chart** (see page 23) that explicitly highlights each step that staff are performing in the background to get the household from the first initial touchpoint to the completion of the project.

The following directions are recommendations for designing your visuals and flow charts.





Left: public-facing flow chart. Right: staff-facing flow chart. See full maps on pages 19 and 23.

A

Public-facing Flow Chart

A flow chart for your program serves as a visual roadmap that breaks down the full operation, step-by-step.

Purpose:
Create a clean, easy-to-understand map for participants, partners, and funders to educate them on the stages of the program.

Why:
Help homeowners and community members easily visualize what to expect from your program. It should be digestible, visual, and clear.

How to use:
Use as part of your outreach and marketing strategy, include it on your website, and use it in one-on-one conversations so participants know what to expect.

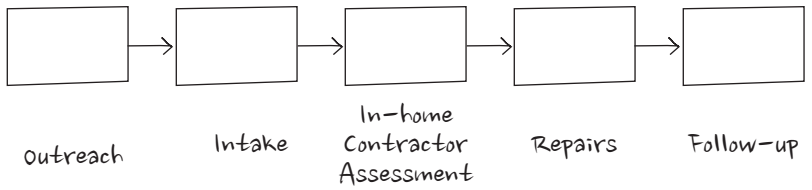
HOW TO MAKE YOUR OWN:

1. **List each big step participants will take during the entire process.**

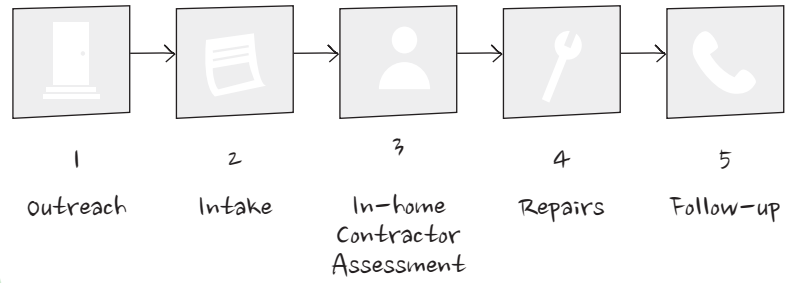
Outreach → Intake → Assessment → Repairs → Follow-up

2. **Draw each step as a simple box with a short label.**

3. **Add arrows and numbers to indicate flow.**

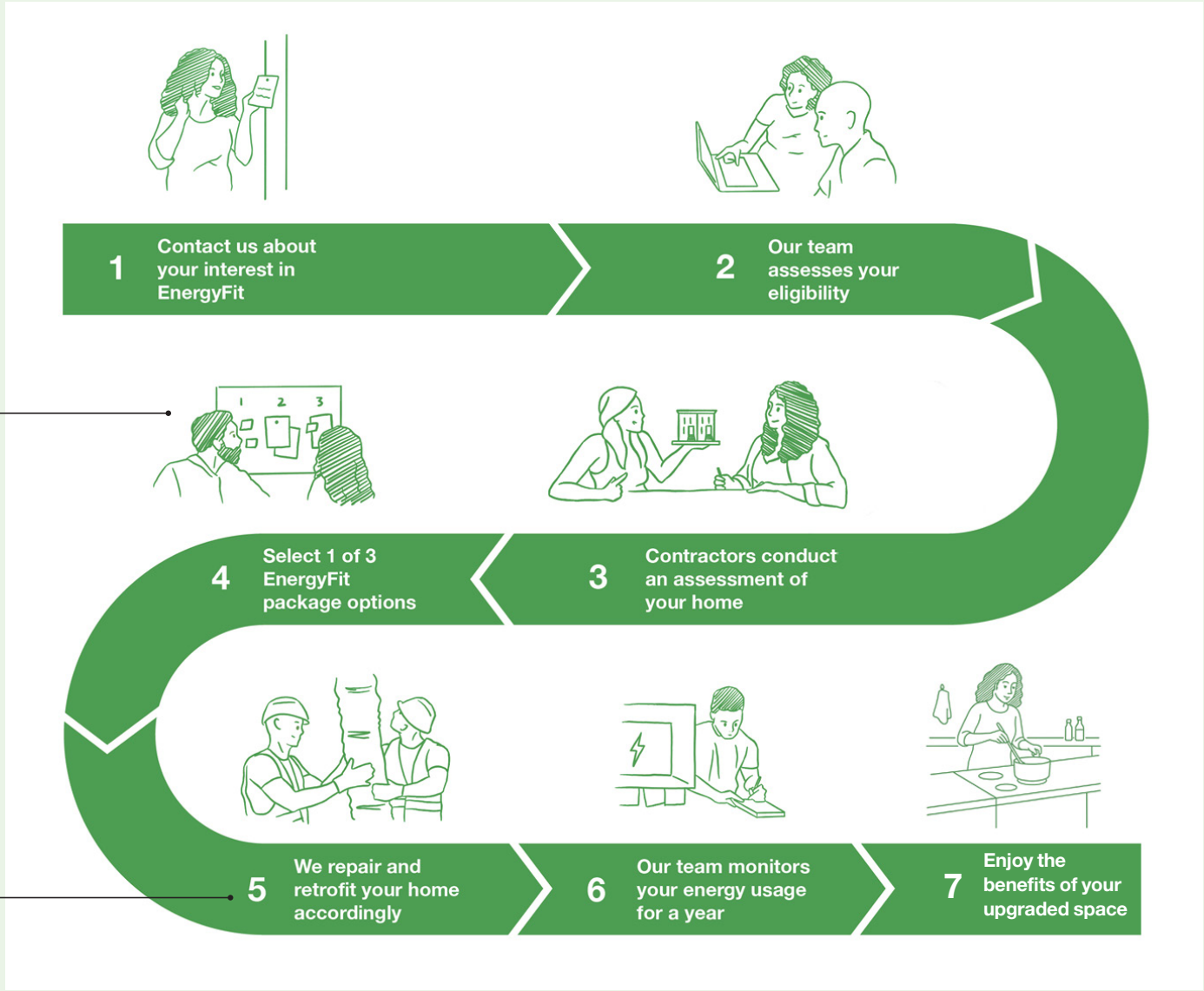


4. **Add simple visuals.**



Limit text. This should be a visual roadmap, not a technical manual!

Public-facing Flow Chart
Example



Simple illustrations

Concise, limited text

B

Staff-facing Flow Chart

Complex, back-of-the-house flow chart that explicitly highlights each step that staff are performing in the background to get the household from first initial touchpoint through completion of the project.

Purpose:
Design a detailed, step-by-step flow chart of your program design, using the main stages as anchors. The flow chart will show what activities happen in each stage and can act as or supplement a Standard Operating Procedure guide.

Why:
A robust and impactful decarbonization program will require multiple stages and steps to get from that first initial connection to the final completed retrofit. Because the program operation can be complex, it's vital to provide staff with a flow chart they can reference during all points of implementation.

HOW TO MAKE YOUR OWN:

1 Gather information

- ☐ Review your organization's current program structures. You may find that there are similarities that can be integrated into your decarbonization program design.
- ☐ Research other organization's programs for ideas.
- ☐ Ask staff to share ideas, feedback, or basic information on how they typically work with clients or run programs.
- ☐ Interview staff and partners about what they see as the main areas of program implementation and what activities they see being necessary.
- ☐ Identify the main phases within the program based on your learnings.

2 Use the main program stages for the process/flow framework

- ☐ Create 5–6 column headers to organize program activities by each stage using a digital canvas like Miro or Microsoft Word. Or you can go old-school and use paper and sticky notes.
- ☐ These are your "buckets" for organizing activities. Although we encourage you to keep the stages to 5 or 6 in total, what occurs in each stage of your flow chart does not have to reflect the exact design of EnergyFit. However we find that those stages are the easiest to work within.

EnergyFit used the following:

- Recruitment
- Intake
- Assessments
- Home Improvements (Retrofit Implementation)
- Evaluation

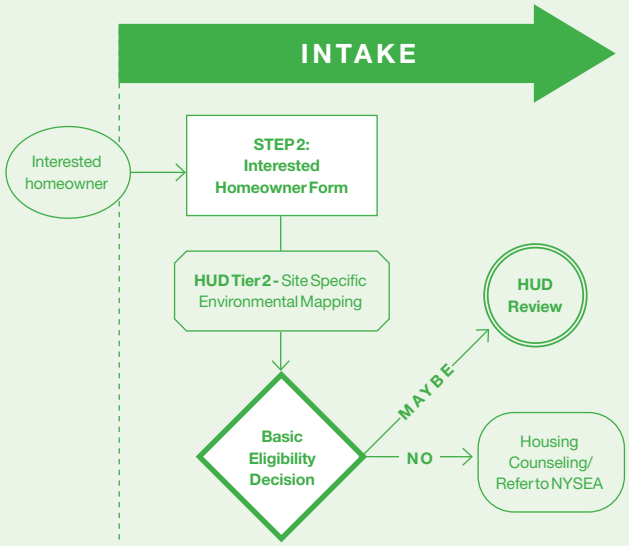
3 Brainstorm activities for each stage

- ☐ Under each stage, write out every step you can think of—sticky notes work great for this. If you aren't sure of what stage an activity will fall into, write it down and add it back in later.
- ☐ Don't worry about roles or order yet, just focus on capturing everything that comes to mind.

Examples from **EnergyFit**'s intake stage include: complete interested homeowner form, over-the-phone assessment, and check eligibility.

4 Arrange steps in order

- ☐ Place the sticky notes for each stage in the order they occur. If working online, move activities to appropriate sections of the document.
- ☐ Draw arrows to connect them so you can see the flow.
- ☐ Add decision points (Yes/No bubbles) where a choice determines what happens next. For example, this could be when an applicant is deemed ineligible, or when further analysis is needed, or when a third party needs to review.



5 Add detail for each step

For each step in your chart, note:

- ☐ **Inputs:** What's needed to start (forms, data, approvals).
- ☐ **Outputs:** What's produced (signed agreement, completed repair).
- ☐ **Timeframe:** How long it should take.
- ☐ **Risks/issues:** What could go wrong and how to address it.

6 Color code roles

- ☐ Once all steps are mapped, use colors to mark who does what (e.g., green=staff, blue=contractor, orange=partner).
- ☐ Make sure color palette has good contrast for maximum accessibility

This helps you see where work is concentrated, who is responsible for what and when, how interaction will flow, and more.

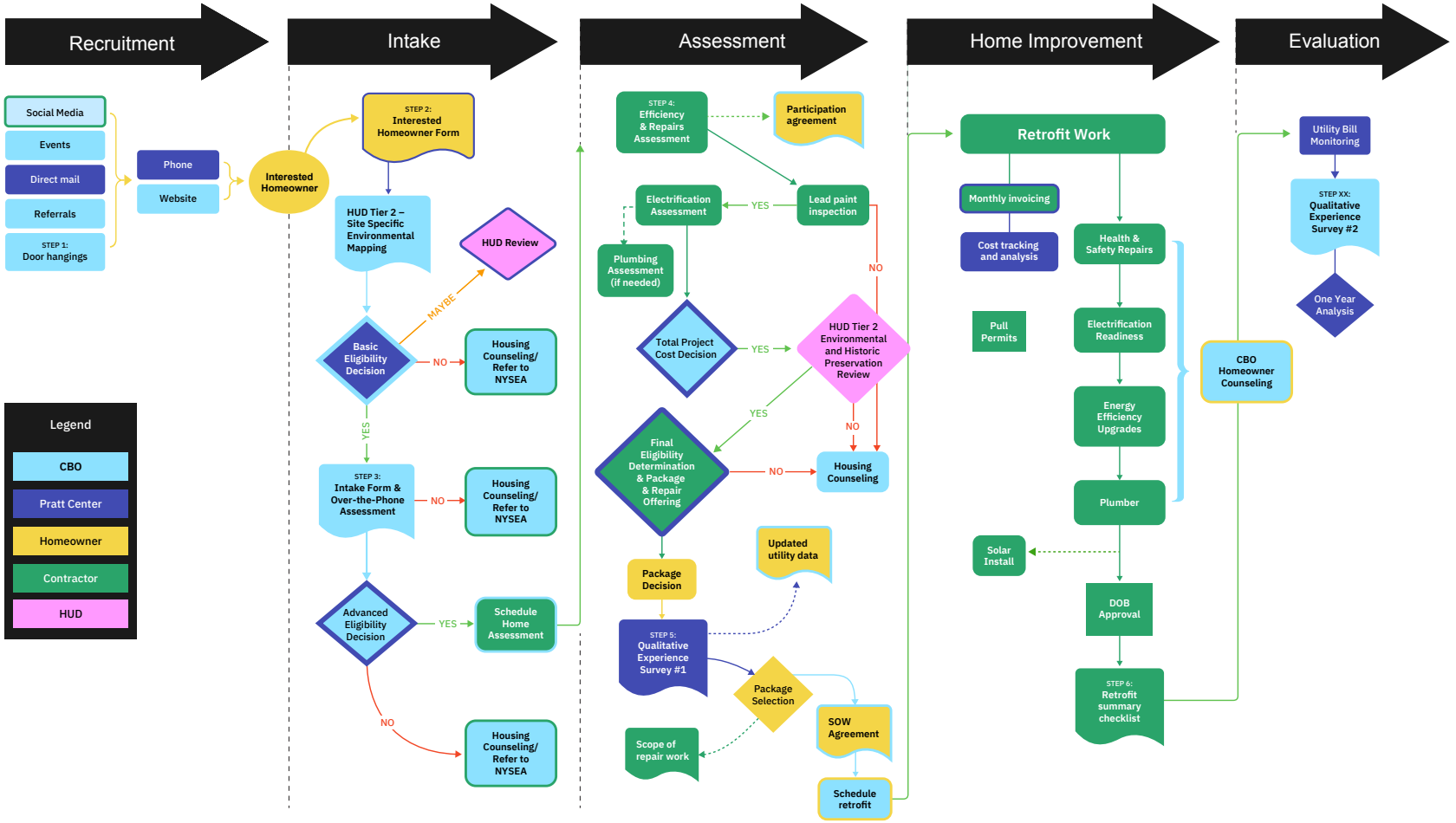
7 Test program flow and edit as needed

- ☐ Walk through the chart using a “test participant” from start to finish.
- ☐ Ask staff: “Does this match what really happens?”
- ☐ Adjust until the flow feels accurate and realistic.

8 Put program flow chart into practice!

- ☐ Use this detailed internal version for staff training and have them use this as you roll out the program. This way, each part of the retrofit journey is accounted for.
- ☐ Review and update as needed. At the beginning of implementation, you will need to assess if the order of program operations is working and where you can improve. Over time this will become an iterative process, only necessary if new funding requirements come up or other unexpected changes occur.

Staff-Facing Flow Chart Example



5.

Choose Your Tools and Measures

Choose the right clean energy tools for the building stock your program will focus on.

A Understand the local housing stock

- If your organization has the capability, **run a GIS analysis** of local building records to map and quantify the number of homes in your catchment area that could potentially be eligible.

- **Review the typical types of homes in your community** (e.g., older homes with gas boilers, small rowhouses with electric baseboard heat, newer homes with central AC). In EnergyFit the homes we identified as the most commonly in-need were two- to four- unit rowhouses that use gas/oil to heat their homes and water and use electric to cool and power the rest of the home.

- Based on your findings, **conduct a sample of home energy assessments using a certified energy auditor**. Reviewing a handful of detailed audits can reveal what retrofit measures are most frequently needed, helping you design packages that will apply to the majority of homes you intend to serve. EnergyFit's packages of measures came from previous research by Pratt Center.

- **Identify the most commonly recommended solutions** in the energy audits found in your sample of homes.

B Determine your program's set of decarbonization measures

Using the findings of the energy audits, identify what measures your program will offer participating households. This should be a mix of the most commonly recommended energy efficiency, electrification, and health and safety repairs.

Energy efficiency
Energy efficiency should always come first. Before adding solar or switching to electric equipment, homes should reduce how much energy they use. Using less energy means future upgrades can be smaller, cheaper, and better sized for the home. Starting with efficiency ensures households are meeting their energy needs with the lowest possible energy use.

- Insulation (attic, walls, basement, joists)
- Air sealing (filling in cracks and holes to reduce unwanted drafts and air leakage)
- LED light bulbs
- Smart thermostats and energy monitoring devices
- Low-flow water fixtures
- Pipe-wrap insulation

Electrification measures
Next, identify which fossil fuel systems show consistent need for fixes or upgrades. Not all energy audits assess fossil fuel systems for electrification, however the audit should tell you the age, provide information on how the equipment is functioning (particularly health & safety issues), and what the expected useful life left of the equipment is (or look up the life span of that specific piece of equipment and compare to the year installed). This information can help determine what measures across your building stock will need to be updated over the next few years.

Common equipment upgrades include (for more refer back to the Explaining Decarbonization section):

- Heat pumps for heating and cooling
- Heat pump or electric water heaters

A caveat for electric water heaters: Heat pump water heaters are the most energy efficient, but they can cost more to install. With a constrained budget, it may make sense to upgrade the fossil fuel water heater to a more traditional electric one—but only if the household equipment is at its end of life and will likely be changed out for another fossil fuel heater at that time.

- Induction stoves and electric appliances
- Heat pump dryers
- Electrical panel and wiring upgrades

Note: During your planning, it is important to speak with local electricians to determine if there are other costs that might not fall directly under the installation of a measure. For example, with EnergyFit, many households have needed a service upgrade, which can extend to costs beyond the traditional panel and wiring costs.

Start small with electrification. Rather than electrifying everything at once, programs should begin with one or two high-impact upgrades. Electrification reduces gas use, and newer electric systems are typically much more energy efficient. However, even when total energy use goes down, electric bills may increase depending on local electricity rates. Planning upgrades in phases helps programs manage costs, assess bill impact, and set clear expectations for households.

Health, safety, and repair measures
Included in home energy audits there should be information on any identified health and safety or repair needs that must be fixed prior to implementing the retrofit. Often these fall into a few categories:

- Poorly maintained boilers and water heaters, which fail to vent toxic fumes externally
- Mold issues, caused by incorrectly installed kitchen and bathroom ventilation or window and roof leaks
- Lead and asbestos

The most common issues relate to ensuring healthy indoor air quality. As you consider what measures to cover, make sure they are repairs that enable the energy efficiency and electrification measures to be installed.

Because energy efficiency involves insulating and air sealing a home, it means that less air is moving in and out of the home. This is good for keeping homes warm in winter and cool in summer, but not for healthy breathing if it exacerbates an already existing air quality problem in the home.

Note: Another plus for co-designing this program is that a participating contractor can provide feedback on which health and safety fixes must be prioritized.

In **EnergyFit** we cover a wide range of repairs. Decisions on what is covered are based on what the final estimated cost for the household's full decarbonization package is and whether the repair is vital to our ability to install the other measures.

C Price out measures

To determine what your program can offer, you need to know what the work will cost to budget appropriately. This is not always an easy calculation because different contractors have different labor costs, materials and supply costs rise due to inflation, incentives may be available and then not, and other market factors may arise. However, estimating will only provide a baseline for which you will work from, so it's important to remember to build in calculations that provide a buffer in case costs come in higher than expected (or, hopefully, lower!)

- ☐ Reach out to local contractors or suppliers to gather real-world cost ranges for each measure you're considering. Searching online can also provide prices for the bigger measures, such as induction stoves or heat pump water heaters.
- ☐ Remember that for equipment, purchasing is only one part of the cost—labor from contractor will need to be included.
- ☐ Use published incentive program data (from utilities, state agencies, or nonprofits) to understand rebates and subsidies that reduce out-of-pocket costs.
- ☐ Create a pricing sheet that shows both gross costs (before incentives) and net costs (after incentives).
- ☐ Revisit these estimates quarterly; equipment and labor prices fluctuate.

D Design measure packages

Once you have a clear picture of what the expected costs will be, design 2-3 packages of measures.

- ☐ Create at least two levels of packages (for example: Basic Efficiency + Health & Safety and Full Retrofit with Electrification).
- ☐ Use insights from both the audits and your pricing estimates to make sure the packages align with real-world conditions and realistic budgets.
- ☐ Prioritize measures that provide immediate comfort and bill savings.
- ☐ Consider how electrical upgrades will be staggered and ensure that any system updates needed to install electrical equipment should be considered the beginning of the electrification journey.

Why create packages of measures rather than an individual menu of options? Building science has specific rules for how to most effectively reduce household energy usage, and often the measures that are the most efficient are not the ones homeowners are looking for. By using a package approach, you are guaranteeing the household that the work being done will be the most impactful for driving down their energy use.

EnergyFit Packages Used	Package 1	Package 2	Package 3
Home Repairs (as needed)	●	●	●
Energy Efficiency Measures	●	●	●
Electrification Readiness Measures			
Electric Induction Stoves	●	●	●
Wiring and Panel Upgrades	●	●	●
Electric Domestic Hot Water Heater		●	●
Solar Photovoltaic Installation			●

6.

Create Program Materials

Design written and visual resources to provide external and internal program guidance.

A successful program will require a few core materials in order to be successful. The general categories required fall into the following:

- Outreach Materials
- Operating Materials & Internal How-to's
- Participant Agreements
- External Educational Materials

A Outreach materials

Once you have a clear picture of what the expected costs will be, design two or three packages of measures.

- **Purpose:** Attract homeowners, tenants and/or landlords; build trust in the program.

- **Content to include:**
  - ☐ Program overview and goals
  - ☐ Eligibility requirements and application process
  - ☐ Benefits for households (comfort, savings, health, environmental impact)
  - ☐ Clear next steps and contact information
  - ☐ Funder names—not required, but can add legitimacy to marketing materials if your organization is less well-known.

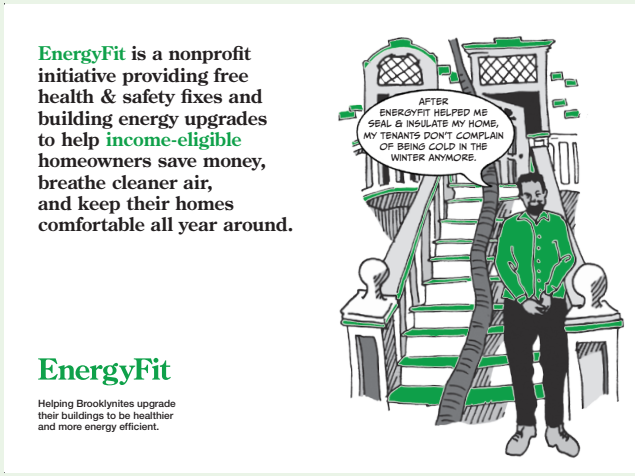
- **Formats:** Flyers, social media posts, radio announcements, doorhangs, postcard mailings, community presentations, and translated materials for language access.

Keep your program's outreach materials simple, visually appealing, and accessible. Use plain language that focuses on community benefits (comfort, savings, health) rather than technical details (see note re climate change). Include multiple ways to respond (phone, text, website form, QR code) and ensure materials are translated for the languages spoken in the community and by your staff. Partner with trusted local organizations or leaders to distribute materials for credibility.

Note: Although climate action might be one of the driving pillars of your program, knowing what drives the individuals to participate is important to ensuring applicants. For many households, climate action is a nice addition but the need to save money or repair their homes for comfort and safety are higher priorities.

Outreach Materials

Examples from EnergyFit



From left to right: Door hangers (front and back), posters (Spanish), postcard.

B Operating materials & internal how-to's

A successful program needs guidance materials for staff and partners working on the project. These documents enable program processes to be followed as intended, ensuring that your team remembers the many steps and procedures that are required to move a household from the first point of contact through the completion of a whole home decarbonization project.

Standard Operating Procedure (SOP)

- **Purpose:** A step-by-step guide to core program operations. Ensures accurate program implementation. The "bible" with everything necessary to run the program.
- **Content to include:**
  - ☐ Intake and eligibility screening
  - ☐ Home assessment and audit process
  - ☐ Contractor selection, scheduling, and oversight
  - ☐ Health, safety, and compliance requirements
  - ☐ Participant communication protocols
  - ☐ Data entry, tracking, and reporting
- **Format:** Use checklists, flowcharts, and step-by-step instructions rather than long narratives. Include sample scripts with important details for staff to use when communicating with clients so important details are not missed. Clearly define roles and responsibilities. Review and update the SOP regularly based on staff feedback and lessons learned in implementation.

C Participant agreements

Write participation agreements in clear, reassuring language that households can understand without legal expertise. Highlight participant rights and responsibilities upfront, using bold headings and summaries. Walk participants through the agreement in-person or on the phone to ensure informed consent. If there are particulars about construction decisions, such as whether the program will pick the provided equipment or homeowners are responsible for the final paint-matching post-retrofit.

Explain why the data is needed, how it will be used, and how privacy will be protected. Keep the form short and easy to complete, and clearly state the duration of consent. Provide examples (e.g., "we use your bills to track savings and prove program impact to funders").

- **Purpose:** Protect your organization, the program sub-contractors, and the homeowner from any miscommunications that could lead to legal problems.
- **Content to include:**
  - ☐ Utility Bill Sharing Agreement
  - ☐ Participant's responsibilities in the program, including energy data access and qualitative surveys.
- **Format:** A fillable PDF and/or Docusign

D Educational materials

Design hands-on, practical, and easy to reference materials. Use step-by-step instructions with photos, diagrams, or checklists, and avoid jargon and technical language. Highlight long-term savings and comfort while making energy use understandable. Provide resources and contact information for troubleshooting and ongoing support.

- **Purpose:** Support participants in using and maintaining the efficiency measures installed in their home, and help them manage energy use over the long term.
- **Content to include:**
  - ☐ Instructions for new equipment or systems (e.g., heat pumps, induction stoves, ventilation upgrades)
  - ☐ Guidance on everyday energy-saving practices and behaviors
  - ☐ A "How To" on reading and understanding utility bills
- **Format:** Handbooks, simple one-pagers, short videos, community workshops, and in-home demonstrations when needed.

Conclusion

EnergyFit was built on decades of research, partnerships, and on-the-ground testing, but your program does not have to start from scratch. We created this toolkit to distill what we have learned into a program design resource that you can adapt to your community's needs.

Our hope is that organizations in every city and neighborhood can use these learnings to design a retrofit program that works best for them—one that brings more low- and moderate-income households along in the shift to a more just, more sustainable energy future. This toolkit focuses on helping you think through the structure, decisions, and tradeoffs involved in designing a program. Implementation will look different in every community and will require ongoing problem-solving, partnerships, and iteration beyond what this toolkit can fully capture. Though the climate landscape is constantly changing, every small win counts. From a homeowner breathing easier to a family saving on energy bills, these are the kinds of outcomes thoughtful program design makes possible. So go on. Start where you are. Use this toolkit when challenges come up or when the next idea sparks. Use the worksheets, sketch out ideas as you read, or jot notes on a napkin. Anything that brings your program closer to life in your community.

The planet needs all of your creativity, persistence, and leadership. We can't wait to see what you build!

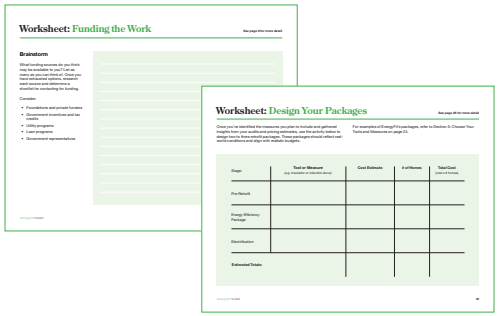
EnergyFit Workbook

You've read through the toolkit. Now it's time to put those ideas into action.

This section gathers all the prompts, questions, and planning tools from the toolkit into one place. Each worksheet is designed to help you think through a different step, from defining your goals to identifying partners and planning implementation.

Use these pages however works best for you: print them out and write directly on them, or fill them out digitally. The goal is to help you organize ideas, document decisions, and move your program from concept to reality.

Remember: there's no single right way to do this. Start where you are, work with what you have, and keep moving forward.



Worksheet: Funding the Work

See page 9 for more detail

Brainstorm

What funding sources do you think may be available to you? List as many as you can think of. Once you have exhausted options, research each source and determine a shortlist for contacting for funding.

Consider:

- Foundations and private funders
- Government incentives and tax credits
- Utility programs
- Loan programs
- Government representatives

Worksheet: Defining Your Program Goals

See page 12 for more detail

Identify what your community needs

Answer one or all of the following questions:

- What are the biggest housing and energy or repair-related challenges people face?
- What do they want to improve about their homes or buildings?
- What local resources do they currently use or know about?
- What barriers do they face when trying to access existing program?

Worksheet: Defining Your Program Goals

See page 12 for more detail

Understand what is actually achievable

Answer one or all of the following questions:

- Does any of this work require compliance with local building or zoning codes? If yes, what are they and how do we comply?
- What are our skills and what is needed to fully meet our goals?
- Who are our partners and what skills do they bring to the table?
- Are there available resources to solve the problem?
- Not every problem can be solved. What can we actually resolve?

Worksheet: Defining Your Program Goals

See page 13 for more detail

Create a set of goals and quantifiable targets

Your program goals should be clear and specific. Goals should also identify who is the recipient of the outcome, so it's important to avoid vague statements such as "help people with energy efficiency."

Use the following guiding questions:

- Who are you helping?
- What change do you want to make?
- How will your program offerings help you meet your goal?

Worksheet: Define Your Eligibility Criteria

See page 14 for more detail

Determine eligibility criteria for participants

Consider:

- Demographics
- Income
- Energy burden
- Household makeup
- Distance to polluting infrastructure

Determine eligibility criteria for buildings

Consider:

- Number of units
- Type of heating fuel used
- Type of stove used
- Location of building
- Building conditions
- Year built
- Type of heating/cooling system

Worksheet: Define Your Eligibility Criteria

See page 14 for more detail

Determine strict vs. flexible requirements

- Which criteria is an absolute necessity?
- Which criteria is a “nice to have” but not necessarily make or break?
- Are there paperwork requirements for energy incentive applications?

Review criteria for fairness and equity

- Do your requirements unintentionally leave out an at-need population?
- Do your requirements provide resources to struggling neighborhoods or does it exacerbate gentrification of the community?
- Do you have a strict protocol for decision making? What is the program’s plan for unexpected situations?

Worksheet: Identify Partners for Collaboration

See page 16 for more detail

Brainstorm

Research the current ecosystem of community organizations in your area of interest. Stakeholders can include contractors, homeowners, tenants, housing counseling organizations, utilities and local community-based organizations.

- Are there any organizations that stand out as potential partners?
- What organizations have a mission that aligns with this work?
- What organizations focus on repairing housing?
- What organizations have deep community ties?
- Who are your community's highest rated contractors?
- What contractors work on similar projects in your community?

Worksheet: Creating a Public-facing Flow Chart

See page 18 for more detail

1. **List the big steps participants go through** (ex: Outreach → Intake → Assessment → Repairs → Follow-Up).
2. **Draw each step as a simple box with a short label** ("In-home Contractor Assessment").
3. **Add arrows or numbers** so people see the flow from start to finish.
4. **Add simple visuals for each step**

Worksheet: Creating a Staff-facing Flow Chart

See page 18 for example chart

1. **Gather information.** Identify the main phases within the program based on your learnings.

2. **Create 5–6 column headers** to organize program activities by each stage. These are your “buckets” or "stages" for organizing activities (e.g. Recruitment, Intake, Home Assessment, etc.). Keep the stages to 5 or 6 in total.

3. **Brainstorm activities for each stage**

4. **Arrange steps in order. Draw arrows to connect them** so you can see the flow and **add decision points** (Yes/No bubbles) where a choice determines what happens next.

5. **Add detail for each step** (inputs, outputs, timeframe, risks/issues).

6. **Color code roles.** Once all steps are mapped, use colors to mark who does what.

7. **Test program flow and edit as needed.** Walk through the chart using a “test participant” from start to finish. Adjust until the flow feels accurate and realistic.

8. **Put program flow chart into practice!** Review and update as needed.

Worksheet: Creating a Staff-facing Flow Chart

See page 18 for more detail

Worksheet: Your Tools and Measures

See page 24 for more detail

Understanding the local housing stock

- Review the typical homes in your community, e.g., “older homes with gas boilers, small rowhouses with electric baseboard heat,” etc.
- Conduct a sample of home energy assessments using a certified energy auditor. What did you learn?
- Identify the most commonly recommended solutions in the energy audits found in your sample of homes.
- Optional: Run a GIS analysis of local building records to map and quantify the number of homes in your catchment area that could potentially be eligible

Worksheet: Your Tools and Measures

See page 24 for more detail

Determine your program's set of decarbonization measures

- List potential energy efficiency measures, e.g., insulation, air sealing, LED light bulbs, smart thermostats, etc.
- List potential electrification measures, e.g., heat pumps for heating and cooling, induction stoves, electrical panels or wiring upgrade, etc.
- List health and safety measures, e.g., fossil fuel equipment failing to ventilate toxic fumes, poor ventilation, lead and asbestos, etc.

Worksheet: Price Out Measures

See page 26 for more detail

Pricing out measures

- Gather estimates from local contractors or suppliers for the measures you chose
- Use published incentive program data (from utilities, state agencies, or nonprofits) to understand rebates and subsidies that reduce out-of-pocket costs.
- Create a pricing sheet that shows both gross costs (before incentives) and net costs (after incentives).

Worksheet: Design Your Packages

See page 26 for more detail

Once you've identified the measures you plan to include and gathered insights from your audits and pricing estimates, use the activity below to design two to three retrofit packages. These packages should reflect real-world conditions and align with realistic budgets.

For examples of EnergyFit's packages, refer to Section 5: Choose Your Tools and Measures on page 26.

Stage:	**Tool or Measure** (e.g. Insulation or induction stove)	**Cost Estimate**	**# of Homes**	**Total Cost** (cost x # homes)
Pre-Retrofit				
Energy Efficiency Package				
Electrification				
Estimated Totals				

Worksheet: Create Program Materials

See page 27 for more detail

Brainstorm

Make a quick list of the program materials you will need, and begin sketching out each item's purpose, format, and design. Refer back to page 28 to learn more about the materials created for EnergyFit and to consider whether similar materials would be useful for your program, such as:

- Outreach materials
- Operating materials
- Participant agreements
- External educational materials

Questions? Reach out to **Pratt Center for Community Development** at info@prattcenter.net

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