



REENERGIZE COMMUNITY ACTION PLAN v1.0

A Guide to Community Energy Planning

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PREPARED BY

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executive summary

For more than three years, GTECH Strategies and other organizations, as part of the ReEnergize Pgh Coalition, have been convening to facilitate the development of a more robust residential energy efficiency sector. In early phases of the conversation, the need for community outreach and engagement was set as a high priority. Educational programming increases demand for services, gives service providers the ability to meet demands, and creates jobs.

In 2013, GTECH Strategies engaged residents from 14 communities as Ambassadors to lead outreach and education activities in order to bring high-level energy efficiency information to the community level. Through outreach, contact with over 6000 individuals was made within the ReEnergize Pgh Communities about the benefits of energy efficiency. This includes household benefits such as increased comfort, reduced negative health impacts, and reduced living costs. At the community level, increased livability, increased economic activity, and environmental benefits were also discussed.

This program engaged community residents and partner organizations including; Bloomfield Development Corporation, the Eco Center, Lawrenceville United, Millvale Development Corporation, Operation Better Block, Wilkinsburg Community Development Corporation, Squirrel Hill Urban Coalition, Steel Valley COG, Oakland Planning and Development Corporation, Mt. Washington Community Development Corporation, New Hope Church, and the municipalities of Mt. Lebanon and Scott Township, in energy efficiency-specific community planning. With the on-going and iterative development of community action plans, the intention of this project is to help alleviate the burden of research and capacity. In order to facilitate data driven planning and program development, we've outlined housing, financial, and social indicators outlined at the community level. Through proper planning, energy efficiency roadblocks can be lifted through access to programming, consumer awareness, available financing, and advocacy for industry friendly policy.

ReEnergize Pgh Coalition Members

ACTION-Housing, Inc
Affordable Comfort, Inc
Allegheny County
The BlueGreen Alliance
The Breathe Project
City of Pittsburgh
Citizens For Pennsylvania's Future
Columbia Gas
Community College of Allegheny County
Conservation Consultants Inc
Diagnostic Energy Auditors
of Western Pennsylvania
Duquesne Light
Equitable Gas
Green For All
Group Against Smog & Pollution
GTECH Strategies
Job Corps of SWPA
Habitat For Humanity
The Heinz Endowments
Kingsley Association
Peoples Natural Gas
Pennsylvania Environmental Council
Pittsburgh Climate Initiative
Pittsburgh Community Services Inc.
Pittsburgh Green Innovators
The Pittsburgh Foundation
Sustainable Pittsburgh
Rebuilding Together
Q-Dot, Inc.
The Urban Redevelopment Authority

Core recommendations, as determined through outreach and research, are outlined in this document and are listed below.

- **Hold community outreach and education events**
- **Host landlord/property owner workshops.**
- **Incentivize energy efficiency upgrades to encourage other home improvement programs.**
- **Perform energy efficiency upgrades on redevelopment/rehab for resale properties and adopt Building Performance Institute Standards.**
- **Develop community home performance training program.**
- **Encourage sharing of residential utility information to create energy baseline.**
- **Create an information kiosk as a source of energy efficiency services.**
- **Partner with local groups and organization to leverage resources and develop sustained programming.**

These recommendations are intended to be used by communities as a starting point. However, as collaboration increases in neighborhoods, recommendations may change and grow to fit the community's needs.

introduction

WHO WE ARE

GTECH Strategies

GTECH Strategies (Growth Through Energy and Community Health) is a Pittsburgh based non-profit social enterprise, whose mission is to cultivate the unrealized potential of people and places by creating opportunities that improve the economic, social, and environmental health of our communities GTECH's communities.



ReEnergize Pgh and the Coalition

ReEnergize Pgh is a coalition of local utilities, government agencies, community organizations, energy efficiency professionals, conservation non-profits and environmental advocacy groups all of whom understand and address the issues of comfort, energy savings, air quality, health and safety in residential, multi-family and small commercial buildings and their impact on our environment and quality of life. Since 2011, ReEnergize Pgh has worked to bring together stakeholders in the Energy Efficiency industry to understand barriers to growth, and strategically bring the sector to scale while lifting as many roadblocks as possible.



REENERGIZE PGH EFFORTS

ReEnergize PGH Coalition Committees

Finance



The Finance Committee exists to understand best practices across the country for consumer oriented financing options, and to strategically think through how those options can fit in the Pittsburgh Market. The Healthy Homes Incentive Program is a direct outcome of the Finance Committee’s work. The goals of the finance committee are to understand the financial roadblocks outlined above, and trying to create solutions such as HHIP.

Policy



The Policy Committee exists to understand energy efficiency policies at a national and local level and to recommend policy improvements to strengthen the efficiency market. The Policy Committee provided recommendations for the Pennsylvania Utility Commissions Act 129 Phase II Program Requirements and connected with local government to put forward new and innovative ideas.

Greening the Multiple Listing Service

The Multiple Listing Service (MLS) is a tool used in the real estate industry to collect and list specific information about homes that are on the market. One thing the MLS does not list is information about home energy use. This is a limiting factor because that means a home-buyer is blind to the average energy consumption of a home before purchase. In some parts of the country, “Green MLSes” are being implemented to openly provide energy information for homes to help the buyer make an informed decision. This committee has been working to adapt resources from Green MLSes around the country for Western Pennsylvania’s needs.

Interested individuals and organizations have used the Coalition as a means of empowerment and action by:

- Conducting research to detail successes around the country
- Developing and distributing energy efficiency brochures aimed at

Realtors to garner support for a Green MLS

- Developing the Healthy Home Incentive Program
- Accessing professionals with experience in the energy efficiency arena

Outreach and Information

Since 2011, ReEnergize Pgh has partnered in and conducted 16 energy efficiency education sessions, reaching approximately 300 residents across 8 different communities: Hazelwood, Homewood, Larimer, Squirrel Hill, Allison Park, Aliquippa, Penn Hills, and Wilkinsburg.

Ambassadors Program

ReEnergize Pgh has learned that outreach in communities without a strong organizational footprint decreases responses to energy efficiency initiatives. For this reason, the ReEnergize Pgh Ambassador Program was introduced in 2013 to maximize neighborhood impact. Located in 14 partner communities, 15 ReEnergize Pgh residents participated in a year-long training and outreach program. These residents, called Ambassadors, were chosen based on their merit as active citizens with a vested interest in improving their community. Ambassadors did outreach based on materials covered in training sessions. Residents were more receptive to information presented to them by individuals who have a shared understanding and background within their respective neighborhood. Through the Ambassador program, ReEnergize Pgh made contact with over 6000 people with energy efficiency information at the community level.



Healthy Homes Incentive Program

Health problems created by poor indoor air quality can be mitigated by a well performing, energy efficient home. The mission of the Healthy Homes Incentive Program (HHIP) is to help make those energy efficiency improvements easier and less expensive for homeowners.

HHIP engages consumers at two tiers:

- Open Market: For home energy efficiency investments of \$5,000 or more, we will provide up to an additional \$2,500





for even deeper improvements. Eligible homeowners will be identified and enrolled into the program.

- Low Income: Partnering with Rebuilding Together Pittsburgh (RTP), HHIP will help make energy improvements to augment critical livability repairs that are to be performed by RTP.

approach

CONTEXT

Community Action Plans

This report uses housing, financial, and social indicators paired with on-the-ground experience to develop community specific recommendations. The need for community based energy efficiency action plans were identified through years of neighborhood level outreach to consumers and community-based organizations. There were two key observations made during the 2013 ReEnergize Pgh Ambassador program that led to the creation of this report.

A Knowledge Gap

All of the community partners that were a part of the 2013 ReEnergize Pgh Ambassador Program were very enthusiastic about increased energy efficiency activity within their community. At the same time, many partners had limited knowledge of existing programming and resources. Opportunities often rest within already active programming which, with some consulting and planning, can be made to incorporate energy efficiency practices.

Capacity

Community organizations are often too saturated to single handedly plan and implement energy efficiency programming. This document aims to alleviate the burden by identifying vetted projects or ideas that a community can implement with the guidance of supporters. This helps lift the burden of the early stages of program development, which often involves research, idea generation, and partner identification.

Much of this document is directed towards stakeholders within the community who have an interest in seeing a healthier, more economically vibrant, and comfortable community. While helping communities understand the opportunities that exist in energy efficiency, it is one of the goals of ReEnergize Pgh to catalyze new projects and connect communities and stakeholders to resources that can help to thoughtfully execute projects.

METHODOLOGY

Define and Select Indicators

It is important to properly identify indicators for measuring energy efficiency in communities. Residential communities represent approximately one-third of global primary energy use, which can create large financial and environmental burden on communities as energy demand grows (Price, et al., 2006). Given the residential sector's large share of energy demand, neighborhood-level energy efficiency programs are an effective tool for financial and environmental sustainability. Considerable focus, both nationally and internationally, has been directed toward the residential sector as it consists of a large number of consumers, similar products, and some uniformity in demand structures (Haas, 1997).

Based on analysis of the data collected, we defined indicators of energy efficiency and detailed their roles in adding depth to community plans. Neighborhoods and communities are able to use relevant data, graphical information, and statistics on neighborhood and municipalities from the United States Census Bureau to broaden the impact of energy efficiency programming and plans.

Community Recommendations

Several categories of information were included, like total housing units, occupied housing units, vacant housing units, age of homes, renters per occupied units, owners per occupied units, and selected monthly owner costs as a percentage of income (SMOCAPI). Statistical information on housing units provides a more accurate picture of the community's energy efficiency. In particular, knowing the social make-up of housing ownership, the financial components of ownership, the physical characteristics of homes, and the community's composition lend to the development and support of recommendations for energy efficient futures.

There are three spatial categories for the 14 communities: municipalities outside the City of Pittsburgh, singular neighborhoods with no political boundaries, and multiple neighborhoods that constitute a singular one colloquially. Five of the communities are municipalities in Allegheny County

outside of the City of Pittsburgh: Homestead, Mt. Lebanon, Scott Township, Millvale, and Wilkinsburg. The information for these municipalities was gathered from the United States Census Bureau at the sub-county level.

The five communities that stand singularly as neighborhoods are Bloomfield, Hazelwood, Larimer, Mount Washington, and Marshall-Shadeland. The information for these communities was gathered from the United States Census Bureau at the census tract level and then aggregated.

Lastly, four communities are neighborhoods within the City of Pittsburgh which are colloquially known as singular entities yet actually are a conglomeration of distinct neighborhoods: Lawrenceville (Upper Lawrenceville, Central Lawrenceville, and Lower Lawrenceville), Oakland (North Oakland, Central Oakland, West Oakland, and Central Oakland), Homewood (Homewood West, Homewood North, and Homewood South), and Squirrel Hill (Squirrel Hill North and Squirrel Hill South). The information for these communities was obtained from the United States Census Bureau at the census tract level and then aggregated for both the colloquial neighborhood (i.e., “Squirrel Hill,” “Lawrenceville,” etc.) and the political neighborhood within it (i.e., “Squirrel Hill North,” “Central Lawrenceville,” etc.).

Mapping

Having identified and selected relevant indicators, geographically and visually representing findings becomes a key part of connecting data to recommendations. As such, ArcGIS was used to represent the data geographically which includes information on all the ReEnergize Community Action Plan (ReCAP) communities. Recommendations and best practices were formed based on the geographical information provided through mapping software.

INDICATOR ANALYSIS

Indicator: Occupied and Vacant Units

Housing Units (Occupied and Vacant):

Understanding the complete housing stock of a community is a necessary first step to determining measures for community energy plans. Total housing units per community were gathered from the US Census to provide a base profile for ReCAP communities. Especially in urban settings with considerable levels of energy needs, the number of housing units are critical for energy efficiency determination (de la Rue du Can, et al., 2010). This indicator is further broken down into both occupied units and vacant units. While occupied units are of central concern, vacant units also must factor into energy efficiency plans as communities seek to utilize such units.

Analysis

As seen in Figure 1.1, there are several communities, primarily in the eastern region that have high levels of vacant housing units – often a quarter or more of the housing stock. In some communities, this is concerning due to the lower numbers of occupied units, meaning there just aren't as many residents in the community and that much of their housing stock is being underutilized and probably slowly degrading, rather than staying relevant with energy efficient upgrades. The southern municipalities of Scott Township and Mount Lebanon have both higher numbers of occupied units as well as a low percentage of vacant units which correlates to what we could expect. Municipalities are often able to manage their growth more consistently and have less movement in residents. In general, we would like to see vacancy rates minimized and the number of occupied units rise. Where we darker shades of blue, we believe that some sort of resident programs would make sense due to numbers of people and properties that could benefit.

Indicator: Units In Structure

Units in Structure:

Particularly in urban environments, building upon housing units as an indicator becomes necessary due to higher densities. Based upon information from the United States Census, units in a structure describe the amount of separate, fully-functional living quarters within a housing unit. Housing units with higher numbers of units in structure correlates to higher energy demand and use within such units.

Figure 1.1: Occupied Housing Units and Vacancy Rates

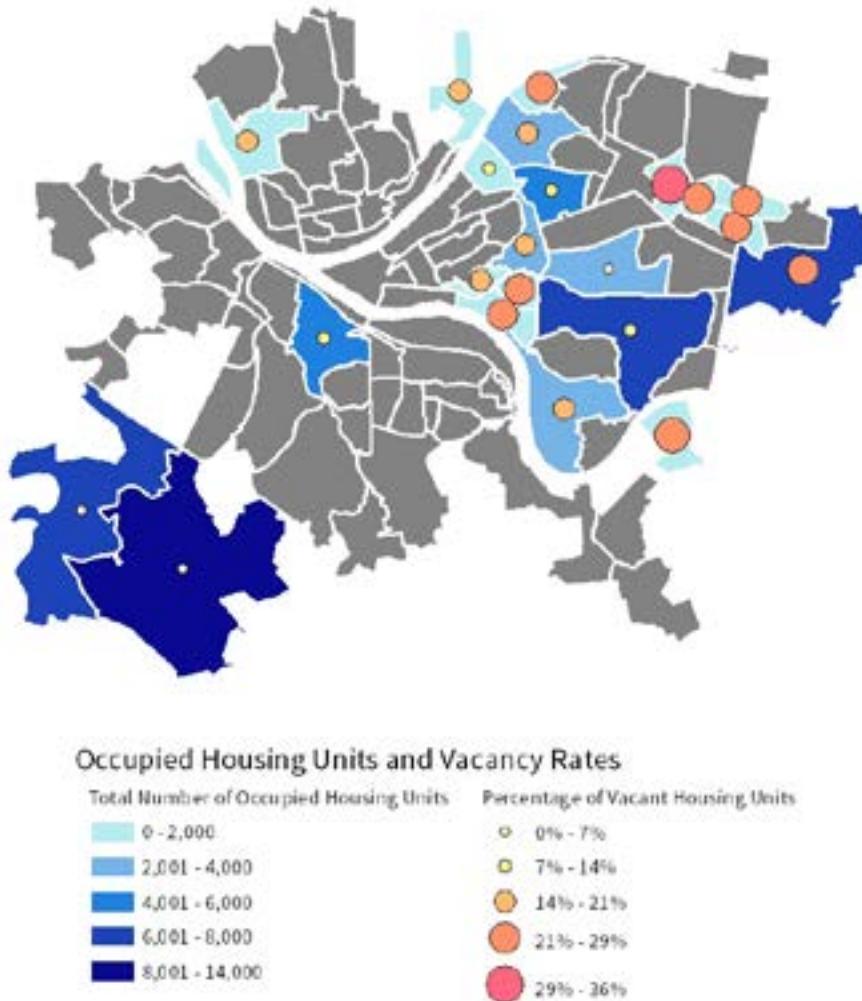


Figure 1.1: As expected, some of the most distressed neighborhoods have some of the highest percentages of vacant houses. This is true especially in communities such as Homewood, Marshall-Shadeland and Homestead. Data on vacancy statics was skewed in Oakland due a transient student population.

Indicator: Age of Structure

Year Structure Built:

The age of a structure and the composite average structure age per community are particularly important for examining residential building energy efficiency. Older buildings often require retrofits to increase the financial and environmental sustainability of buildings. Communities averaging higher numbers of older structures are poised to take advantage of energy efficiency updates to older existing structures. These updates can not only decrease energy use but also improve the comfort of homes for residents.

Analysis

The age of homes by ReCAP communities can be seen in Figure 1.2. Spatial analysis using the US Census Bureau statistical information on housing characteristics confirms that most every ReCAP community contains a large housing stock of homes built before 1939. Notable exceptions to this are Scott Township with a majority of homes built between 1950 and 1960 and West Oakland with a large number of newer buildings.

Indicator: Rooms Per Housing Unit

Rooms per Housing Unit:

Heating and cooling are amongst the largest end-uses of energy within the residential sector. As such, the size of a home is important for determining the amount of energy necessary to properly regulated indoor climate. The United States Census provides information on the number of rooms per housing unit.

Figure 1.2: Age of Homes

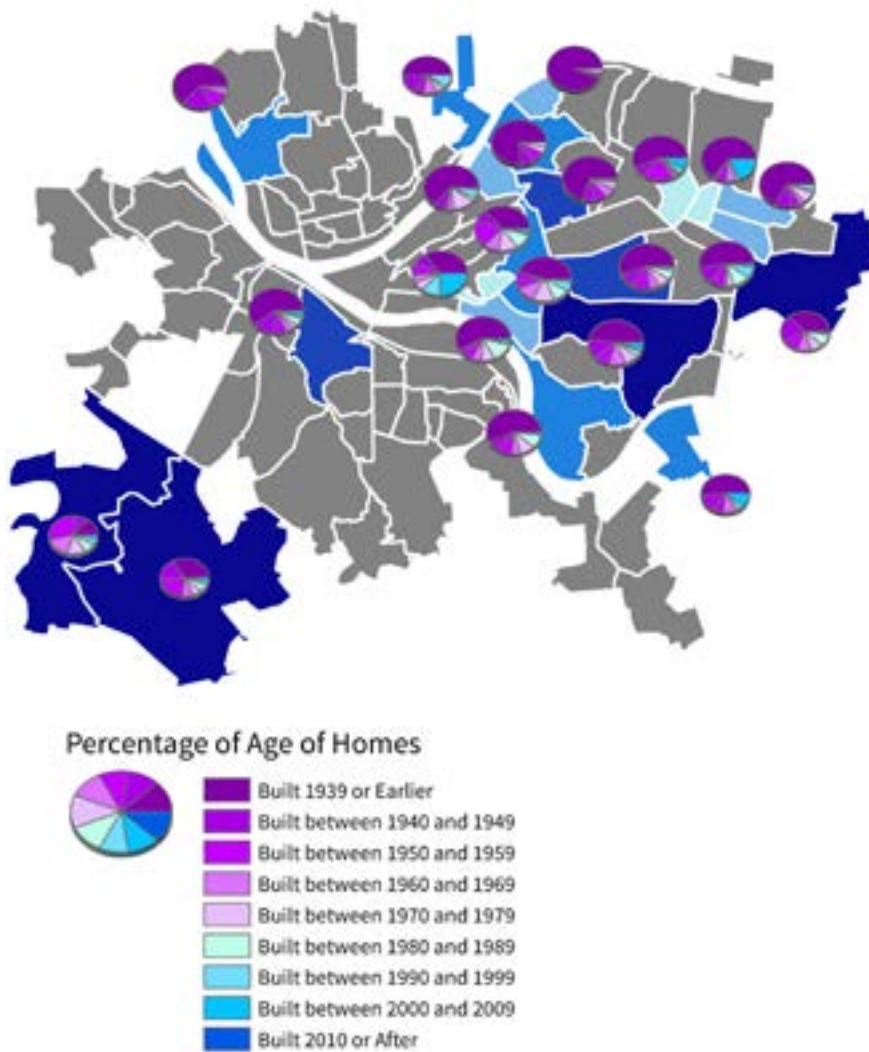


Figure 1.2: Age of homes is a significant indicator in examining energy efficiency in Ambassador communities. Many communities within the City of Pittsburgh have large percentages of their homes that were built before 1939, while the Southern suburbs have larger percentages of homes built after World War II.

Indicator: Household Income Devoted to Owner Costs*Selected Monthly Owner Costs:*

Selected Monthly Owner Costs (SMOC) are calculated from the sum of payment for mortgages, real estate taxes, various insurances, utilities, fuels, other home costs, and condominium fees. Through data from the United States Census, SMOC is presented here in direct costs to home owners ranging from less than \$300 to over \$2000. In most all cases, the inclusion of energy efficiency planning can significantly decrease the monthly owner costs associated with fuels and utilities.

Selected Monthly Owner Costs as a Percentage of Household Income:

Selected Monthly Owner Costs as a Percentage of Household Income (SMOCAPI) applies household income to SMOC. By including SMOCAPI, the financial burden placed upon a household due to home-ownership costs becomes increasingly evident. Most government agencies consider SMOCAPI above 30 percent as excessive home-ownership costs. The United States Census provides data on SMOCAPI through the American Community Survey.

Analysis

Percentage of household income devoted to owner costs exceeding 30% is an important designation to monitor the financial health of buildings and their tenants. Figure 1.3 shows the SMOCAPI for ReCAP communities. Spatial analysis shows that all of Oakland experiences high occurrences of selected monthly owner costs over 30%, most notably West Oakland. The Borough of Homestead and parts of Homewood also experience higher rates of selected monthly owner costs over 30%.

Indicator: House Heating Fuel*House Heating Fuels:*

The way in which a housing unit is heated is an important economic consideration for homeowners. Within Allegheny County, most housing units are heated with utility gas. Understanding the most widely used heating fuel sources provides necessary information on costs associated with heating. Data on house heating fuels is provided by the United States Census.

Figure 1.3: Percentage of Household Income Devoted to Owner Costs

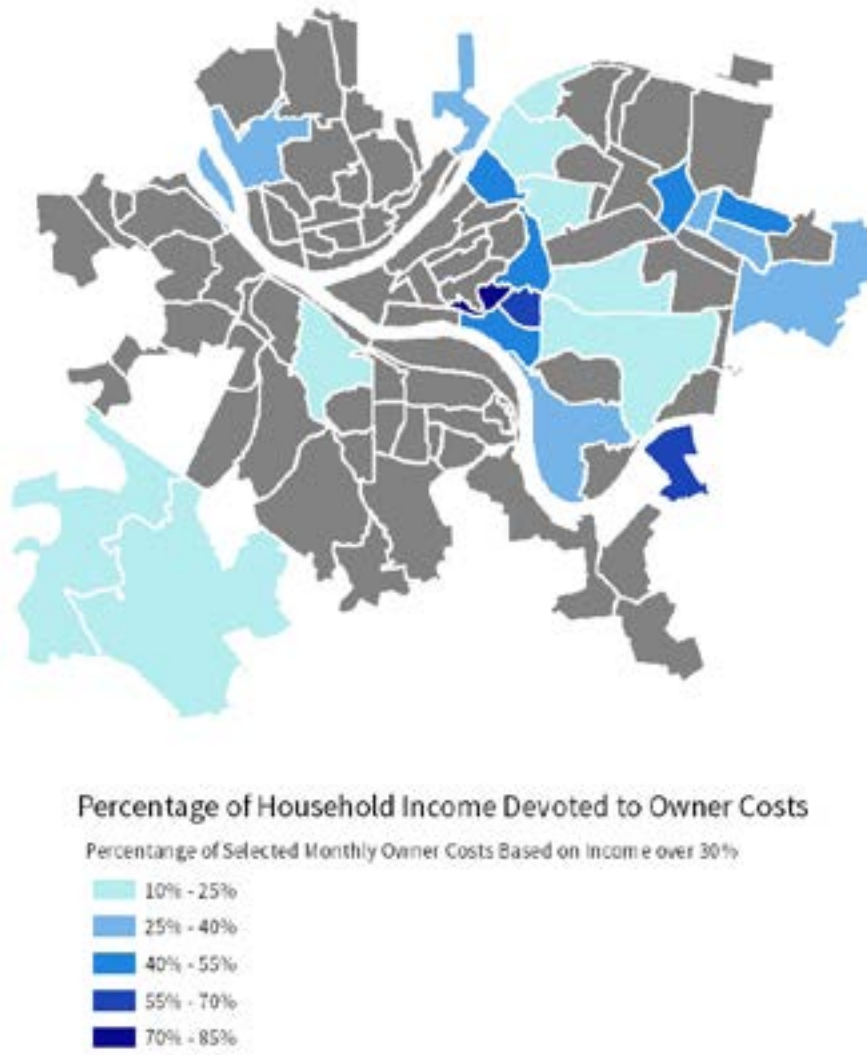


Figure 1.3: Having expendable income is critical in having the funds necessary for either small or large energy efficiency upgrades. There are high SMOC costs in the poorer East End neighborhoods of Homewood, Larimer and Hazelwood. Data on SMOC costs were skewed in Oakland due to a large transient and renter student population.

Indicator: Renter Occupied Units*Renter Occupied Units:*

Information on renter occupied units is important for a variety of reasons for communities seeking to become increasingly energy efficient.

Analysis

Figure 1.4 shows the proportion of renter-occupied units in ReCAP communities. With a large number of institutions of higher education in the City and County, renters and landlords play a critical role in energy efficiency. For example, certain communities – such as Oakland – have higher percentages of renter occupied units due to the proximity of several universities. This creates opportunities for co-learning activities between landlord and student. The high mobility and decreased community connections renters may have is an important consideration for communities seeking neighborhood-level capacity for energy efficiency improvements.

Even outside the scope of student renters, landlord education and engagement can play a significant role in energy efficiency in an urban setting. Spatial analysis of the region shows that significantly urban areas have higher concentrations of renters. Thus, communities within the City of Pittsburgh experience the highest amount of renter populations. Of municipalities outside of the City, Wilkinsburg and Millvale both had higher percentages of renters while Scott Township and Mt. Lebanon have some of the region's lowest percentages of renters. This can be seen in Figure 1.4.

Indicator: Owner Occupied Units*Owner Occupied Units:*

In addition to renter occupied units, owner occupied units can provide vital information to communities seeking increased energy efficiency. Communities with large numbers of owner occupied units can create educational programs centering on home performance auditing and energy efficient housing retrofits. Furthermore, such communities can capitalize on social capacity given the less transient nature of home-owners as compared to renters.

Figure 1.4: Percentage of Renters in ReCAP Communities

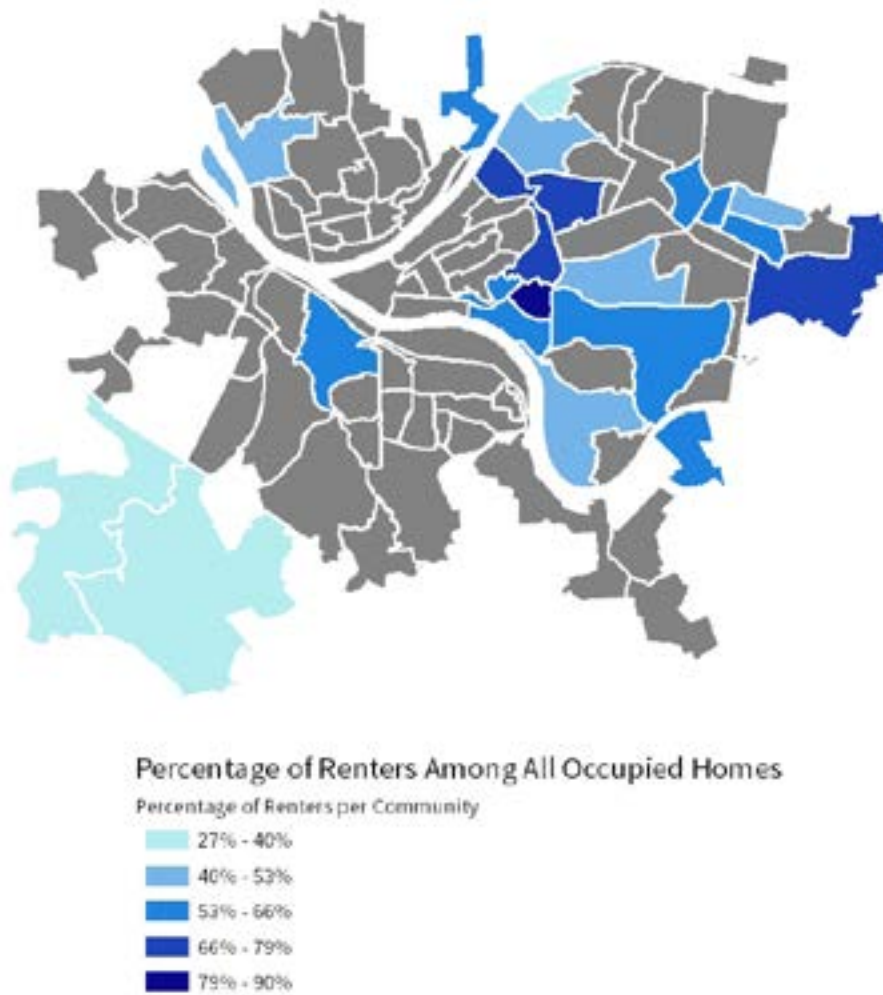


Figure 1.4: Those neighborhoods (Oakland, Squirrel Hill, Garfield, etc.) around the major academic institutions had some of the highest percentage of renters among all occupied homes. Home ownership in suburban neighborhoods (Mt. Lebanon and Scott Township) were among the highest between all communities studied.

recommendations

OVERVIEW

In this section, you can find a list of recommendations and actions to help increase energy efficiency programming and activities within communities. These recommendations can hold true for every neighborhood and municipality that has been listed on the report. However, some of these actions are better suited for some communities than others. Following an overview of general recommendations, a targeted community profile provides specific recommendations. Many of the recommendations can be acted upon by community-based organizations, but the ReEnergize Pgh Coalition can also serve as a resource and provide assistance in both developing and executing many of these recommendations.

Hold Community Outreach and Education Events

Problem Addressed:

A general lack of knowledge with regard to available energy efficiency programming and services available within the community and region.

Actions:

Actions include identifying intended target audiences for outreach and education programs, determining venues best fit for target audience based on neighborhood patterns, and selecting customized messages for target audiences.

Implementation and Purpose:

Education sessions customized to the needs of a specific community are the most effective way to engage community members. There is no cookie cutter method for hosting education sessions across different neighborhoods, so considerable care must be taken in order to assure the highest possible impact. Measurement has shown that where community members were met with consistent messaging multiple times, energy use was reduced by as much as 10% just through easy low-hanging-fruit measures.



Education sessions, depending on the form they take, can have impacts on communities of all demographics. For example, in low-income communities, assistance and weatherization programs are available to residents who lack financial capacity. As such, innovative consumer education projects are required to help people save energy while they are on waiting lists for assistance programs, or if they are waiting to be in a better financial situation before investing in home performance.

The same is true for mid to high-income families. There is often not enough accurate information regarding energy efficiency services, leading many homeowners to invest in other types of home performance projects. For example, mid to high-income communities may have access to such services easily, but lack information on such programs. Because it may be difficult to get residents to attend educational sessions, different approaches such as speaking at existing clubs or hosting workshops in the form of a social gathering in a home can lead to greater success.

Conduct Landlord and Property Owner Workshops

Problem:

A lack of initiatives that engage landlords and rental property owners in retrofitting rental properties.

Actions:

Possible activities to address the problem include identifying landlords interested in property improvements, hosting landlord trainings on energy efficiency, and connecting landlords to resources for energy efficiency retrofits.

Implementation and Purpose:

Renters and rental properties are often left behind by weatherization programs. Because tenants often pay utilities, property owners are not motivated to make energy efficiency retrofits. It is important, however, to help property owners realize that energy efficiency improvements are a good investment, while also helping their tenants increase their quality of life.

Workshops which introduce landlords to energy efficiency service providers



help landlords understand the importance of energy efficiency, as well as connect them to resources that can help retrofit their properties. Such workshops encourage landlords to incorporate utilities into rent after retrofitting their property. This allows for a return on investment from the property with no apparent change in rental rates for the tenant.

Incentivize Energy Efficiency Upgrades within Other Home Improvement Programs

Problem:

Several programs seek to address an aging Pittsburgh housing stock through facade improvement programs, though such programs often miss opportunities to holistically improve a home.

Actions:

When developing grant or loan programs that address housing stock improvement needs, consider incentivizing interior structural improvements and energy efficiency upgrades.

Implementation and Purpose:

With an aging housing stock, it is necessary for the city and surrounding communities to make improvements to residential buildings. As the region continues to develop and grow, it is critical to make housing more attractive. Making key energy efficiency improvements both externally and internally can make a home more comfortable, safe, and livable for years to come.

Perform Energy Efficiency Upgrades on Redevelopment and Rehabilitated Resale Properties and Adopt Building Performance Institute Standards

Problem:

Many communities have a deteriorating housing stock, yet are beginning to see an increased demand for housing.

Actions:

Several actions can be taken to ensure that an aging housing stock is updated as housing demand increases. Measures include purchasing distressed and blighted properties, and rehabbing and incorporating home performance



standards into any upgrades.

Implementation and Purpose:

By running diagnostics using the Building Performance Institute (BPI) Diagnostic Energy Assessment, property managers can make more informed decisions to improve the functionality and living conditions of a home.



The redevelopment phase is the favorable time to have energy efficiency and home performance standards applied. BPI Diagnostic Energy Assessments are recommended at this stage in order to provide an understanding of the home as a system. BPI Diagnostic Energy Assessments are critical for comfort and energy use of the home, as well as long-term structural integrity.

Develop Community Home Performance Trainings

Problem:

Many communities have an ailing housing stock and high rates of unemployment.

Actions:

Actions that can mitigate this problem include identifying properties that can be part of a rehab-for-resale program, applying energy efficiency standards to new projects, identifying underemployed individuals for trade-skill development, and contracting trained individuals on future redevelopment projects.



Implementation and Purpose:

In communities that have high rates of joblessness, there is an opportunity to train a homegrown workforce to address critical local housing issues. There are unfortunately many workforce development and education programs that leave participants without a job. Training programs should look to use and improve community capacity, while enhancing the housing stock.

Encourage Residential Utility Information Sharing to Create Community Baselines

Problem:

There is a lack of statistical information on residential energy use that is publicly available for planning purposes.

Actions:

Actions to remedy this problem include gaining permission from community members to access energy use information and working with the ReEnergize Pgh Coalition to generate planning maps to inform home improvement advocacy projects.

Implementation and Purpose:

With more accurate energy use information, there can be more in-depth, data driven community planning for energy efficiency. Utility companies are often reluctant to share energy use information, citing customer privacy concerns. However, with customer permission, energy use statistics can be made available. For this reason, effective information collection must be adopted for there to be greater levels of energy use awareness and community energy planning.

An energy-efficiency plan can allow communities to determine areas of greatest need before allocating resource. Neighborhood-scale data can help both hyper-local and regional leaders determine key zones for increased energy efficiency outreach and programming. It is important to standardize data-collection among partners to improve the process of sharing data.

Create a Local Energy Efficiency Information Hub*Problem:*

Residents don't often know where to begin when looking for energy-efficiency information and services.

Actions:

An information hub can be installed in a space that is easily and consistently accessible for community members. Partners in the ReEnergize Pgh Coalition can populate the kiosk with information.

Implementation and Purpose:

Through the 2013 ReEnergize PGH Ambassador Program, the ReEnergize Team identified that a lack of accessible information limited entry into energy efficiency programs and services. Because Internet use is limited in many communities, information kiosks in centrally located, highly trafficked spaces are recommended. Whether at a library or a farmer's market, information



located in a trusted place can encourage residents to participate.



Partner with Local Groups and Organizations to Leverage Resources and Develop Sustained Programming

Problem:

There is a lack of organizational and community capacity to initiate new projects and programs.

Actions:

Collaboration is an essential element for increasing community energy efficiency. When thinking about new energy efficiency programming, individuals and organizations can connect with ReEnergize PGH to gain insight into regional efforts. Organizations should consider partnering with local stakeholders to access resources.

Implementation and Purpose:

Tight budgets and strained capacity are often identified as difficulties in implementing energy efficiency programming. By partnering with organizations like ReEnergize Pgh, communities can access the shared institutional capacity of over 30 local stakeholders, including local leadership offices as well as neighboring community groups.

COMMUNITY-SPECIFIC ACTION PLANS

Bloomfield

Population: 8,442

Population Density: 12,060 per square mile

Change in Population 2000-2010: -7.12%

Land Area: 0.7 square miles



Referred to as “Pittsburgh’s Little Italy,” Bloomfield is a mélange of tree-lined streets, row homes, and unique shops and restaurants. Bloomfield is an urban neighborhood of the City of Pittsburgh with Liberty Avenue serving as its main thoroughfare. It is situated in a central location between universities and cultural attractions in Oakland and Shadyside, the eclectic atmosphere of Lawrenceville, and the historic shopping of the Strip District.

Currently, Bloomfield has 5,206 total housing units of which 4,762 are occupied. 3,610 of the housing units were built on or prior to 1939, which accounts for 69.3% of the housing stock within the community. Furthermore, most remaining housing units not built prior to 1939 were built between 1940 and 1970. Of the total occupied units, 1,612 are owner occupied (33.9%) while 3,150 are renter occupied (66.1%).

Recommendations

1. Bloomfield has a population that is facing transformation with the transition of many long time residents away from there homes. With an emerging new home-buyer market, many of whom are working to remodel their homes, we recommend hosting new homeowner education workshops.

This can help inform best practices in home improvement and energy use. (See recommendation 1 p. 23)

The ReEnergize Pgh Coalition can partner with organizations such as the Bloomfield Development Corporation to produce and coordinate education events. Utilizing spaces such as businesses on Liberty Avenue or the West Penn Hospital can help mitigate costs. Bloomfield has a very mixed population, and therefore will need several different strategies in order to attract the full spectrum of residents.

2. At a rate of over 66%, the community still maintains a high percentage of renters, and as a result, we recommend hosting landlord workshops with a focus on energy efficiency and home performance. See recommendation 2 p. 24)

With interest in participation in Green Leasing conversations, the ReEnergize Pgh Coalition can partner with organizations such as the Bloomfield Development Corporation to produce and coordinate education events. Utilizing spaces such as businesses on Liberty Avenue or the West Penn Hospital can help mitigate costs.

3. Lastly, Bloomfield has a variety of neighborhood resources, such as the Saturday Market. This asset could be utilized to provide neighborhood resources and information on energy efficiency. (See recommendation 7 p. 27)

Attracting energy professionals to market their services at the farmers market can lead to a lot of mutually beneficial exposure for both market-goers as well as the industry professionals. With close to 500 people attending the market each Saturday, many of whom are Bloomfielders, attention can be drawn to a very needed service, especially, as previously stated, newer homeowners are starting to call Bloomfield Home.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Erin Pischke – 2013
PennFuture Black and Gold City Goes Green Blitz – 2013

Organizations and Stakeholders:

- Bloomfield Development Corporation
- Bloomfield-Garfield Corporation
- City of Pittsburgh

Hazelwood

Population: 4,317

Population Density: 2,698 per square mile

Change in Population 2000-2010: -19.07%

Land Area: 1.6 square miles



Hazelwood is a historic neighborhood of the City of Pittsburgh known for its large contribution to Pittsburgh's steel industry. The community is nestled between Oakland, Greenfield, and Glen Hazel while its southern border features the Monongahela River. While the decline of the steel industry had a profound impact on Hazelwood, the community is re-envisioning itself by razing blighted properties, constructing parks, and tapping into the potential of brownfields.

In the community of Hazelwood, there are 2,845 housing units with 2,248 units being occupied. The housing stock was mostly built on or prior to 1939 with 1,601 units (56.3%) falling into the category. Owner occupied units number 1,084 units (48.2%) while renter occupied units number 1,164 (51.8%) of all occupied units.

Current Housing Initiatives

Hazelwood Initiative and Rebuilding Together Rehab for Resale Partnership

ReEnergize Pgh Ambassador Program

ReEnergize Pgh Neighborhood vs. Neighborhood Energy Efficiency Competition

Organizations and Stakeholders:

Hazelwood Initiative
Center for Life
Rebuilding Together Pittsburgh
City of Pittsburgh

Recommendations

1. With stakeholders in the community participating in a rehab for resale initiative, we recommend incorporating energy efficiency retrofits and adopting Building Performance Institute standards as a part of such initiatives. Furthermore, with plans for new development taking place in the neighborhood, we encourage energy efficiency measures for new developments. (See recommendation 4, p. 25)

The Hazelwood Initiative partnership with Rebuilding Together Pittsburgh for rehabbing and reselling properties is a good fit for this type of an initiative. The Diagnostic Energy Auditors of Western Pennsylvania (DEAWP) has trained and experienced auditors for diagnostic testing in rehab properties.

2. With success in past partnerships, the continued partnerships with local groups like ReEnergize Pgh, will allow for the leveraging of resources in order to sustain energy related programming. The ReEnergize Pgh Coalition for example brings together the knowledge within over 30 organizations with varying degrees of knowledge and experience around energy efficiency projects and programming. (See recommendation 9, p. 28)

The Hazelwood Initiative is a participant in the ReEnergize Pgh Ambassador Program, and is set to be a participant in the winter 2014-2015 ReEnergize Pgh Neighborhood vs. Neighborhood Energy Saving Competition. Through this participation, The Hazelwood Initiative, as well as other partner organizations in Hazelwood can continue to access the resources available through the ReEnergize Pgh Coalition.

3. With regard to socio-economic issues, particularly high unemployment rates in the community, we recommend integrating trade skill training programs alongside development initiatives. (See recommendation 5 p. 25)

Partners within the Greater Hazelwood Community Collaborative are well suited for developing such a program. Properties that are in the rehab process are great centers for training individuals seeking to enter the work force. GTECH can help coordinate the identification of good training instructors

through partnerships with DEAWP.

4. The Hazelwood Initiative has been a strong community partner in helping deliver energy education programming, and we recommend continued support for community education workshops. (See recommendation 1 p. 23)

With growth of community capacity via the ReEnergize Pgh Ambassador Program, current and past members of the program can be engaged and enlisted to help coordinate community education workshops.

5. With over half of all residents living in rental units, we recommend developing energy efficiency workshops for landlords. There is a perceived notion by many landlords that the costs of implementing energy retrofits outweigh the benefits. Education around the benefits of energy improvements (See recommendation 2 p. 24)

Current and past Ambassadors can help coordinate landlord workshops. GTECH can help identify energy and real estate professionals to conduct the training through ReEnergize Pgh Coalition Partnerships.

Past Initiatives

ReEnergize Pgh Ambassador Host Community - 2013

Community Energy Efficiency Education Workshops - 2012, 2013

Peoples Gas Audit Program - 2013

Energy Carolers Outreach Program - 2012



Homewood

Population: 6,442

Population Density: 6,442 per square mile

Change in Population 2000-2010: -29.9%

Land Area: 1 square mile



Homewood is a neighborhood of the City of Pittsburgh's Eastside, which is comprised of three distinct neighborhoods: Homewood North, Homewood South, and Homewood West. The neighborhood has a rich history within the City of Pittsburgh, originally being home to many estates of Pittsburgh's elite. While economic downturn in the region in the latter half of the 20th century has greatly affected Homewood, revitalization efforts and the unique characteristics of the neighborhood present the communities of Homewood with great opportunities for growth.

As a whole, Homewood includes 4,042 housing units of which 2,975 (73.6%) are occupied. The housing stock of Homewood was predominately built on or prior to 1939 with 2,455 (60.7%) housing units being built at this time. As a percentage of total occupied housing units, owner occupied units represent 44.5% and renter occupied units represent 55.5%.

Current Housing Initiatives

Homewood Renaissance Property Redevelopment Project

All 4 Life Job Readiness Program

Recommendations

1. As various organizations within Homewood work towards continued property development/redevelopment, incorporating home performance and Building Performance Institute standards into property redevelopment initiatives can help ensure long lasting structural integrity as well as comfort for residents. (See recommendation 5 p. 25)

Organizations such as the Homewood Renaissance Association and others pursuing housing improvement projects, the ReEnergize Pgh Coalition can help provide information and resources to help access energy efficiency and home performance professionals.

2. With both an aging housing stock, as well as higher rates of underemployment in Homewood, incorporating home performance training into job readiness initiatives can serve the dual purpose of retrofitting homes as well as developing a sustainable work force. (See recommendation 6 p. 26)

The All 4 Life program offered by the Homewood Renaissance Association (HRA), provides construction and restoration job training. Paired with HRA's upcoming property development/redevelopment initiatives, home performance training for program participants can help create and keep jobs within the community. The ReEnergize Pgh Coalition can help develop a training curriculum for such a program.

3. As a general first step, Homewood can highly benefit from continued developments for innovative community education workshops in order to encourage energy savings. For example, it is in Homewood where simple educational outreach led to measured energy savings of 10%. (See recommendation 1 p. 23)

ReEnergize Pgh can help coordinate workshops with appropriate speakers and organizations present to help educate residents.

4. With more than 55% of all occupied housing being rental units, it is recommended that Homewood implement landlord education workshops. Landlords and tenants are often faced with a split incentive to improve building conditions. Education on the benefits of things like green leasing can help overcome hesitation in making energy related investments. (See

Organizations and Stakeholders:

Operation Better Block

City of Pittsburgh

recommendation 2 p. 24)

ReEnergize Pgh can help coordinate workshops with appropriate speakers and organizations present to help educate landlords.

5. In order to remove barriers to energy efficiency, it is recommended that an informational kiosk is installed within or near a highly trafficked community space with information on various available services located there. This can help provide a reliable location for information whenever residents wish to pursue energy efficiency. (See recommendation 6 p. 27)

The ReEnergize Pgh Coalition and the ReEnergize Pgh Ambassadors are good resources to work with in order to place a kiosk. The Homewood branch of the Carnegie Library may be a fitting location for an energy efficiency information center. As an example, during the 2013 Ambassador program, the Ambassador representing Millvale worked with the Millvale Community Library to place an information kiosk.

Past Initiatives

ReEnergize PGH Ambassador Host Community – Rhonda Sears
Community Energy Efficiency Education 2011
PennFuture Black and Gold City Goes Green Blitz

Larimer

Population: 1,728

Population Density: 3,883 per square mile

Change in Population 2000-2010: -33.6%

Land Area: 0.4 square miles



Larimer is a neighborhood of the City of Pittsburgh most notably bordering the neighborhoods of Highland Park, East Liberty, Homewood, and Shadyside. Larimer is a neighborhood rich in history, which now faces a variety of issues and holds many opportunities as it proceeds into the 21st century.

Larimer currently contains 989 housing units of which 682 are occupied (69%). A majority of the housing units in the neighborhood were built on or prior to 1939 with 553 (55.9%) being built at this time. However, a large number of housing units were also built between 1950 and 1959 (21.2%). Out of the total occupied housing units, 275 housing units are currently owner occupied (40.3%) while 407 are renter occupied units (59.7%).

Recommendations:

1. Larimer finds itself in a unique situation in which it stands to benefit greatly in terms of energy efficiency programming by leveraging current community assets. This includes recommendations to host community education events. (See recommendation 1. p. 23)

Resources within the community like the Environment and Energy Community

Outreach Center (EECO Center), and Kingsley Association should be used to continue hosting community education sessions. The help of active residents like former ReEnergize Pgh Ambassador, Betty Lane can be used to help gather support for such events.

2. With a considerable amount of work being placed on neighborhood revitalization, it is strongly encouraged that energy efficient building design be utilized for new construction and renovation to older units. As new development comes into the community with millions of dollars of federal investment, it is important to incorporate Building Performance Institute standards not only for the comfort of the residents, but also for the long term structural longevity of the buildings. (See recommendation 4 p. 25)

Groups like the Diagnostic Energy Auditors of Western Pennsylvania (DEAWP) can be consulted for their extensive building science knowledge. For multifamily units being built, the services of ACTION-Housing’s Multifamily One Stop Shop retrofit program should be utilized. Both of these organizations are coalition partners.

3. The new development coming to Larimer can also hopefully mean local jobs for local residents. We recommend construction and energy efficiency related job training be made available for individuals seeking employment in the Larimer area. (See recommendation 5 p. 26)

In 2011, the Kingsley Association hosted Building Performance Institute (BPI) Building Analyst training provided by the Diagnostic Energy Auditors of Western Pennsylvania. Although the program successfully accredited a number of individuals as BPI energy auditors, the availability of jobs in the area lagged behind. If energy efficiency standards are followed in the new development coming to Larimer, that can mean a high availability of jobs in the field for local residents.

4. Finally, with almost 60% of housing units being rental properties in the community, hosting landlord educational sessions focused on energy efficiency is recommended. (See recommendation 2 p. 24)

Connecting landlords to the coalition can be an important way to help improve existing housing stock, especially on the streets in Larimer that aren’t at the core of the new development. ReEnergize Pgh can partner with coalition members to

Organizations and Stakeholders:

- The Kingsley Association
- Pittsburgh Community Services
- Inc. Energy Efficiency Community
- Outreach Center
- The City of Pittsburgh

deliver programming.

Past Initiatives:

ReEnergize Pgh Ambassador Host Community – Ms. Betty Lane – 2013

PennFuture Black and Gold City Goes Green Blitz – 2013

Energy Efficiency Education Program – 2013

Kingsley Energy Auditor Training Program – 2011



Lawrenceville

Population: 9,492

Population Density: 5,273 per square mile

Change in Population 2000-2010: -9.9%

Land Area: 1.8 square miles



The neighborhood of Lawrenceville is three distinct neighborhoods – Upper Lawrenceville, Central Lawrenceville, and Lower Lawrenceville – that fall within the City of Pittsburgh along the Allegheny River. Once part of Pittsburgh’s highly industrialized past, Lawrenceville is an up-and-coming neighborhood due to significant revitalizing, affordable housing, and the influx of trendy stores, restaurants, and bars.

Combining the three distinct neighborhoods, Lawrenceville is comprised of 5,417 housing units with 4,448 (82.1%) being occupied. Lawrenceville is home to much historic architecture with 76.6% of the housing stock being built on or prior to 1939. Of the total occupied housing units, 46.8% are owner occupied units and 53.2% are renter occupied units.

Recommendations

1. Within the neighborhoods that compromise Lawrenceville, there is a high percentage of renters. Due to this fact, it is recommended that Lawrenceville develops landlord education workshops that focus on energy efficiency.

ReEnergize Pgh can help coordinate education sessions with the help of community

organizations such as Lawrenceville United and Lawrenceville Corporation. Utilization of spaces provided by the growing business district on Butler Street can help both educate people as well as draw positive attention to partnering businesses.

2. Lawrenceville is also in a unique position given its draw as a trendy new location for home ownership within the City of Pittsburgh. As such, it is also recommended that new homeowner education workshops are developed with a focus on energy efficiency improvements. As many new homeowners pursue home improvement projects, education on best practices will be important for the preservation of the century old housing stock for generations to come.

As is the case for landlord workshops, ReEnergize Pgh can help coordinate such education sessions with the help of local partners.

3. Finally, given the older housing stock, incorporating sustainable design and home performance retrofits into building improvement programs is highly recommended. Programs such as these can be modeled off of similar existing programs such as façade improvement grants that are often provided by the City of Pittsburgh.

Participation in the ReEnergize Pgh Coalition can help interested organizations.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Jennifer Cleo Zell

PennFuture Black and Gold City Goes Green Business Blitz – 2012

PennFuture Black and Gold City Goes Green Blitz – 2013

Organizations and Stakeholders:

Lawrenceville United Housing
Committee

Lawrenceville Corporation



Marshall-Shadeland

Population: 6,043

Population Density: 4,819 per square mile

Change in Population 2000-2010: -13.06%

Land Area: 1.3 square miles



The neighborhood of Marshall-Shadeland is a predominantly residential community within the City of Pittsburgh's Northside. This also comprises Brunots Island, which serves as an electric power generation center for Duquesne Light. The community extends from the Ohio River to its west into prominent Northside neighborhoods such as Perry North, Perry South, and Brighton Heights.

The neighborhood is comprised of 2,318 housing units with 1,916 being currently occupied (82.7%). Like much Pittsburgh and surrounding municipalities, most of the housing units were built on or prior to 1939 with 1,434 (61.9%) falling into this category. However, the majority of all homes in the community were built prior to 1960 (93.8%). Among all occupied housing, 1,135 units are owner occupied (59.2%) while 781 units are renter occupied (40.8%).

Recommendations

1. Through the ReEnergize Pgh Ambassador Program, the ReEnergize PGH Team was able to identify a significant need for community education programs. As such, it is recommended that a community energy efficiency education program is developed, especially as

a follow-up to the 2013 Black and Gold City Goes Green Blitz. This is the primary recommendation for Marshall-Shadeland because of the identified need for much more community education. (See recommendation 1, p.24)

The Church of New Hope, on Shadeland Avenue, a 2013 ReEnergize Pgh Community Partner is a good resource with past experience hosting energy efficiency education and outreach events. ReEnergize Pgh can help coordinate with them as well as other interested groups to bring future education opportunities to Marshall-Shadeland.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Ginger Underwood
Black and Gold City Goes Green Blitz 2013

Organizations and Stakeholders:

New Hope Church

Brightwood Civic Association



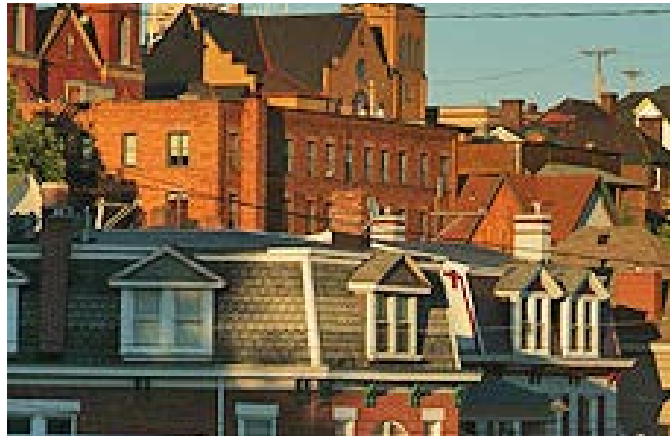
Mount Washington

Population: 8,799

Population Density: 7,718 per square mile

Change in Population 2000-2010: -10.92%

Land Area: 1.1 square miles



Mount Washington is a uniquely located neighborhood of the City of Pittsburgh overlooking much of the center of the City. The neighborhood is known as both a residential and commercial area, entailing both a quickly revitalizing business district and redeveloping residential districts. In particular, Mount Washington is known for having the best urban skyline view in the United States and operating the two oldest continuous inclines in the world.

Currently, the community has 5,142 housing units of which 4,448 are occupied (82.1%). Most of the housing units in Mount Washington were built prior to 1950 (72.3%). Of the total occupied housing units, 1,993 units are owner occupied (44.2%) while 2,519 are renter occupied (55.8%).

Current Housing Initiatives:

MWDC Property Renovation Projects

Recommendations

1. A variety of recommendations are provided to increase the energy efficiency of the Mount Washington community. First, the adoption

of energy efficiency standards for both new development and redevelopment projects is highly recommended. (See recommendation 4 p.25)

As organizations like the Mount Washington Community Development Corporation pursue home repair projects, ReEnergize Pgh Coalition partners, especially the Diagnostic Energy Auditors of Western Pennsylvania (DEAWP), and Conservation Consultants Inc., (CCI) can be engaged to think through best practices in building redevelopment.

2. By leveraging the social capacity, it is recommended that home performance training programs are incorporated into the Mount Washington Emerald Trail Crew. (See recommendation 5 p. 26)

ReEnergize Pgh has discussed this idea with the Mount Washington CDC in the past. There is shared support for this concept, however, more investment is required in order to jump start such a training program. If resources can be made available to develop a program, the ReEnergize Pgh Coalition can be engaged to help coordinate and facilitate training.

3. Finally, continued support for community projects like the PennFuture Energy Efficiency Blitz, as well as any educational sessions in the community, is recommended. (See recommendation 1 p. 23)

Spaces like the Mount Washington Senior Center on Virginia Avenue is a well situated and prominent meeting space for the community. ReEnergize Pgh can help coordinate residential outreach and education activities with help from community organizations like the CDC and Senior Center.

Past Initiatives

ReEnergize PGH Ambassador Host Community – Kendra McLaughlin and Jessica Downs – 2013
Black and Gold City Goes Green Blitz – 2014

Organizations and Stakeholders:

Mt. Washington Community
Development Corporation



Oakland

Population: 22,210

Population Density: 14,806 per square mile

Change in Population 2000-2010: +8.9%



Oakland is a neighborhood that is comprised of four distinct neighborhoods: North Oakland, West Oakland, Central Oakland, and South Oakland. Oakland is a central neighborhood of the City of Pittsburgh, boasting numerous academic, healthcare, economic, and cultural assets such as vibrant business areas, the University of Pittsburgh, and the Carnegie cultural complex.

As a whole, Oakland contains 7,427 housing units with 6,020 (81%) being occupied. While most of the housing stock of the community was built on or prior to 1939 (43.9%), the remaining housing unit ages varies greatly. With a large number of academic institution in and nearby Oakland, the vast majority of occupied units are renter occupied (74.3%, a majority of this percent being student renters) with owner occupied units being considerably less numerous (25.7%) than other communities.

Recommendations

1. Given its large student population, Oakland tends to be a highly transient community for which a unique set of recommendations is necessary to address transient, rental community issues. For example, it is recommended that community education activities on

energy efficiency for permanent residents, the student population engagement as well as landlord engagement. (See recommendations 1 and 2 p. 23, 24)

The Oakland Planning and Development Corporation has been a key partner in the ReEnergize Pgh Ambassador Program, especially with the help of 2013 Ambassador, and OPDC Community Organizer Tara Sherry-Torres. OPDC has experience engaging both residents as well as landlords, and are well situated to handle energy education sessions. The Oakland Green Team, connected to OPDC can be a valuable resource used to coordinate education and outreach.

2. If future home improvement programming is pursued, incorporating Building Performance Institute (BPI) Standards into the development guidelines. (See recommendation 4 p. 25)

The ReEnergize Pgh Coalition can be consulted to help identify experts to help develop building standard guidelines and quality assurance protocols. OPDC and OBID are good community partners, and are good candidates for pursuing home improvement programming. This type of programming is very important for the non-student/family populations living in South, North, and West Oakland. This is especially true as Oakland continues to identify itself as a neighborhood for more than students, and one that is fitting for all Pittsburghers.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Tara Sherry-Torres
Black and Gold City Goes Green Blitz – 2012, 2013

Organizations and Stakeholders:

Oakland Planning and
Development Corporation
Oakland Business Improvement
District



Squirrel Hill

Population: 26,473

Population Density: 6,788 per square mile

Change in Population 2000-2010: +6.67%

Land Area: 3.9 square miles



The neighborhood of Squirrel Hill is comprised of two distinct neighborhoods within the City of Pittsburgh: Squirrel Hill North and Squirrel Hill South. Squirrel Hill is a historic neighborhood of Pittsburgh, originally known as housing for middle management within industrial factories. The neighborhood contains a vibrant business area, Carnegie Mellon University, Chatham University, and one of the nation's largest Jewish populations.

Both neighborhoods combined, Squirrel Hill has 11,282 housing units with 10,326 occupied (91.5%). At 5,710 (50.6%), the majority of the Squirrel Hill housing stock was built on or prior to 1939. Additionally, 39.7% of the remaining housing units were built between 1940 and 1979. Of the total occupied housing units, 48.1% are owner occupied while 51.9% are renter occupied with many being students.

Recommendations

1. With a high volume of financially stable residents, raising energy consumption awareness is one of the biggest opportunities for energy efficiency improvement in Squirrel Hill. In order to help educate

residents, it is encouraged that homeowner education workshops focused on energy efficiency are developed. Although Squirrel Hill is a very well educated, and socially informed neighborhood, further outreach and engagement is needed in order to help residents understand the energy efficiency market, and less in the area of actual energy efficiency principles. Squirrel Hill also has a very diverse population with a high range in income levels. This requires using several different strategies to reach the different market sectors. (See recommendation 1 p. 23)

2013 ReEnergize Pgh Ambassador, Ellie Gordon is a young and very active Squirrel Hill resident who is often very open and helpful when it comes to organizing community outreach events. Ellie also has prior experience meeting many residents through a 2013 PennFuture Energy Blitz. ReEnergize Pgh can help interested community members connect with Ellie, as well as residents who were part of the energy blitz in the past.

Organizations and Stakeholders:

Squirrel Hill Urban Coalition

2. To help increase consumer awareness on accessing energy efficiency and home performance services, it is recommended that a centrally located community space is used as a location for an energy efficiency information kiosk. (See recommendation 7 p. 27)

The Carnegie Library of Squirrel Hill has been a good partner in outreach activities in the past, and is a centrally located space. Building partnerships to locate a physical energy efficiency information center can be a good way to continue using the library as a key community partner. The ReEnergize Pgh Coalition can help provide all energy efficiency programming information.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Ellie Gordon – 2013
PennFuture Black and Gold City Goes Green Blitz – 2013



Homestead

Population: 3,173

Population Density: 5,288 per square mile

Change in Population 2000-2010: -11.3%

Land Area: 0.6 square miles



Homestead is a borough along the Monongahela River in Allegheny County, which borders the City of Pittsburgh. Most notable for its large contribution to the steel industry, Homestead has since seen decline with the descent of the steel industry in the United States. However, recent developments are revitalizing the borough.

The borough is comprised of 2,018 housing units with 1,472 being occupied (72.9%). Like most all of the region, the housing stock age in Homestead is predominantly built on or prior to 1939 with 51.2% of all units falling into this category. Within the borough, the breakdown of all occupied units between owner occupied units and renter occupied units is 36.1% and 63.9% respectively.

Recommendations

1. With a very high Selected Monthly Owner Cost, Homestead is a community that can benefit greatly from increased energy efficiency education for both homeowners as well as renters. The 2013 ReEnergize Pgh Ambassador Program was ReEnergize Pgh's first outreach

initiative in Homestead. Further outreach and education initiatives, partnering with both Homestead businesses as well as community based organizations will be needed in order to both provide information to residents, but also to learn what types of outreach best work in Homestead. (See recommendation 1 p. 23)

ReEnergize Pgh can help coordinate outreach efforts with assistance from connections built through the 2013 Ambassador Program. Utilizing community assets such as the Tin Front Café, the Steel Valley Council of Government offices, or the Carnegie Library of Homestead for event space and outreach can help make programming accessible.

2. With a high percentage of renters, many of whom live in the heart of Homestead, there should be increased landlord workshops focused on energy efficiency. (See recommendation 2 p. 24)

Connecting landlords to Coalition partners and programs such as ACTION-Housing's Multifamily One Stop program can help landlords identify reasons and pathways to invest in energy efficiency. Community partners with relationships with the landlord community will be needed in order to attract and invite landlords. Initial strategy may be to reach out to the gardening community, with which 2013 Ambassador Sharon Ford is very involved in order to identify good landlords.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Sharon Ford

Organizations and Stakeholders:

Steel Valley Council of

Governments

Municipality of Homestead



Millvale

Population: 3,744

Population Density: 5,349 per square mile Change in Population 2000-2010: -7.1%

Land Area: 0.7 square miles



Millvale is a borough River in Allegheny County, which largely follows the Girtys Run tributary as it confluences with the Allegheny River to the north of the City of Pittsburgh. Millvale, like many communities in the region, played an important role in steel manufacturing. However, it has experienced some difficulties due to the decline of the steel industry in the region. Nevertheless, Millvale contains many unique local assets such as the Millvale Riverfront Park and the Saint Nicholas Croatian Catholic Church, which features murals by world renowned artist Maksimilijan Vanka.

The borough includes 2,148 housing units of which 1,746 are occupied (81.3%). In Millvale, 50.7% of all the housing units were built on or prior to 1939 with an additional 31.5% being constructed between 1940 and 1969. Of the total occupied housing units, 774 are owner occupied (44.3%) while 972 are renter occupied (55.7%).

Recommendations

1. Due to Millvale’s history of being susceptible to water damage, it is important to encourage a healthy housing stock. Many home energy

efficiency retrofits go hand-in-hand with structural improvements. With strong support from community partners, continued energy efficiency outreach and an increased level of support for energy efficiency education is recommended. (See recommendation 1 p. 23)

Participation in the 2014-2015 ReEnergize Pgh Energy Savings Competition and Ambassador Program is a great way to continue to reach out to residents about the benefit of energy efficiency. The Millvale Community Library is a fantastic resource for community education and outreach. With solar energy being a big area of interest for Millvale, incorporating solar energy into education modules can help further develop the knowledge base in that area amongst residents.

2. With high rates of renters and a transient population, increased landlord workshops and encouraging green leasing is also recommended. Renters often lack the power to undertake effective home performance projects. More can be done to help landlords realize the incentives for investing in energy efficiency through education. (See recommendation 2 p.24)

This can be done utilizing the capacity built through the ReEnergize Pgh Ambassador Program. With up to 3 community residents learning about the benefits of energy efficiency, as well developing outreach tactics to reach as many people as possible, engaging landlords will be a great way to help Millvale reduce overall energy consumption.

3. As there are commercial revolving loan programs and property rehabilitation grants available in Millvale, we encourage the development of home performance programming for residential properties and encouraging energy efficiency practices in existing programs. (See recommendation 3 p. 25)

The Millvale Borough Development Corporation has a revolving loan program for commercial property rehabilitation. The ReEnergize Pgh Coalition can partner with the Millvale BDC in order to determine what next steps can be taken in order to develop a similar program for individuals and families looking to make residential property improvements.

Organizations and Stakeholders:

Millvale Borough Development

Allegheny River Towns Enterprise

Zone

4. With high vacancy and an aging building stock, we encourage developing rehab for resale programs and incorporating energy efficiency practices. (See recommendation 4 p. 25)

Similarly to the MBDC's other neighborhood development projects, this would require significant planning, and fundraising. The ReEnergize Pgh Coalition can provide support in terms of gathering ideas on how other similar projects were constructed, as well as connecting Millvale to energy efficiency professionals who could help provide the services required to retrofit homes up to Building Performance Institute standards.

Past Initiatives

ReEnergize PGH Ambassador Host Community – Mandy Wingard – 2013

Energy Efficiency Kiosk at Millvale Library – 2013

Mt. Lebanon

Population: 33,137

Population Density: 5,468 per square mile

Change in Population 2000–2010: +0.4%

Land Area: 6.06 square miles



Mt. Lebanon is a home rule municipality within Allegheny County. A suburb of the City of Pittsburgh, Mt. Lebanon is known for a vibrant central business district along the Washington Road thoroughfare. The municipality is also known for its relatively affluent suburban population and desirable school district. Nevertheless, a variety of opportunities exist to further the energy efficiency of the municipality.

Mt. Lebanon consists of 14,514 housing units with 13,816 being occupied (95.2%). Much like the rest of the region, Mt. Lebanon features an older housing stock with 4,997 (34.4%) housing units being built on or prior to 1939. In addition, 47.5% of the housing units were built between 1940 and 1969. As compared to other communities in the region, Mt. Lebanon has a relatively high amount of owner occupied units at 72.3% while only 27.7% is renter occupied, both as percentage of total occupied units.

Recommendations

1. Given Mt. Lebanon's financially stable homeowner population, increasing consumer interest by developing residential educational

Organizations and Stakeholders:

Green Team

Environmental Sustainability Board

programming is highly recommended. Mt. Lebanon has a relatively high amount of households that can afford home renovations, but education around the long term benefits of energy efficiency can help sway people towards home performance when making home improvement decisions. (See recommendation 1 p. 23)

Energy efficiency is a listed priority in Mt. Lebanon’s Climate Action Plan. Mt. Lebanon can use community assets such as the Mt. Lebanon Environmental Sustainability Board, and Green Team to bring consumer level education around the benefits of energy efficiency. Abby Lawler-Morycz and Kathleen Hrabovsky, both of whom were involved with the 2013 Ambassador Program. Using community spaces like the Municipal Building on Washington Rd., or other community groups proved fruitful. Our ambassadors experienced success reaching out to pre-organized group meetings with various clubs.

2. Approaches to education programming must be different in Mt. Lebanon due to its status as a relatively affluent community within the Pittsburgh area. It is recommended that an energy efficiency kiosk be installed in a popular, accessible location to increase community awareness and engagement on energy consumption. (See recommendation 7 p. 27)

This can be especially important after community outreach and education. Once people are more aware of their options around energy efficiency, and are ready to seek further information, having a physical location with information brochures about available programming and contractors can help residents take steps to seek out energy efficiency services. Once again, the municipal building on Washington Rd. can serve as a central, publicly open location. Libraries are also good locations for information kiosks.

Past Initiatives

Climate Action Planning – 2009, 2012

ReEnergize Pgh Ambassador Host Community – Kathleen Hrabovsky and Abigail Lawler-Morycz – 2013

Black and Gold City Goes Green Energy Efficiency Blitz – 2012

Scott Township

Population: 17,024

Population Density: 4,410 per square mile

Change in Population 2000-2010: -1.5%

Land Area: 3.86 square miles



Scott Township is a township in Allegheny County that is bounded by Interstate 79 and the Chartiers Creek to the west and the municipality of Mt. Lebanon to the east. Much like its neighbor community to the east, Scott Township is a relatively affluent suburb of Pittsburgh with ample opportunities to increase energy efficiency within the township.

The township is comprised of 8,221 housing units of which 7,660 (93.2%) are occupied. The housing stock is relatively new compared to other communities in the region with a slight majority of 2,514 (30.6%) housing units being built between 1950 and 1959. The township's occupied units are largely owner occupied at 66.4% of total occupied units while only 33.6% are renter occupied.

Recommendations

1. Scott Township is a challenging community in terms of consumer engagement through community outreach. It is recommended that community education programming be developed to increase awareness around energy efficiency services. Innovative approaches must be

utilized in order to equip community members with the necessary information. Partnering with local groups like the ReEnergize Pgh Coalition can help continue the momentum towards the education of community members about energy efficiency. (See recommendations 1 and 8 p. 23, 28)

2013 ReEnergize Pgh Ambassador, Jane Sorcan had success through tabling at active locations like Lowe's Home Improvement. This provided a venue where individuals were already thinking of their homes, and when presented with information about how to make more informed home improvement decisions, people were willing to listen. Community education through an energy efficiency Blitz in partnership with ReEnergize Coalition partner PennFuture also yielded success. With interest, the ReEnergize Pgh Coalition can provide support for future outreach and education activities.

Past Initiatives

ReEnergize Pgh Ambassador Host Community – Jane Sorcan
PennFuture Black and Gold City Goes Green Blitz

Wilkesburg

Population: 15,930

Population Density: 6,900 per square mile

Change in Population 2000-2010: -17%

Land Area: 2.3 square miles



Wilkesburg is a municipality within Allegheny County bordering East Side neighborhoods of the City of Pittsburgh. Wilkesburg has a long, unique history. Originally settled by Protestant European immigrants, the municipality boasts one of the highest concentrations of churches in the nation. Currently, Wilkesburg has fallen into more difficult times. However, the municipality and organizations within it are seeking to revitalize Wilkesburg's business district and address some of the issues that currently affect the municipality.

The Municipality of Wilkesburg currently contains 10234 housing units of which 7928 are occupied (77.5%). A large portion of housing units in the municipality were built on or prior to 1939 with 3911 (38.2%) being built at this time. Though not the majority, a large number of housing units were also built between 1940 and 1958 (30.2%). Out of the total occupied housing units, 2902 housing units are currently owner occupied (36.6%) while 5026 are renter occupied units (63.4%).

Recommendations

1. Wilkesburg as a community has been a strong supporter of

community education sessions, and has also participated in several Black and Gold City Goes Green Blitzes. Sustained messaging using avenues such as community education can be beneficial to the community, both for its low as well as mid-income areas. (See recommendation 1 p. 23)

Organizations and Stakeholders:

Wilkinsburg Community
Development Corporation

The Wilkinsburg Community Development Corporation is a good community partner and has been helpful in raising interest for community education opportunities. Utilizing spaces such as the Hosanna House and Landmark Preservation Resource Center is important. The Hosanna House is located north of Penn Avenue, and should be used when reaching out to northern Wilkinsburg. The Landmark Preservation Resource Center is located south of Penn Avenue, and is better to use when reaching out in southern Wilkinsburg. Churches within Wilkinsburg are also good resources in terms of having space to host education, but also in terms of raising interest for education opportunities.

2. Wilkinsburg should continue to encourage growth and participation of its housing coalition, and continue bringing housing coalition services to the community. Existing programs within the housing coalition should explore adopting energy efficiency standards and practices with both rehab as well as redevelopment properties. (See recommendation 4 p. 25)

With community partners such as Rebuilding Together Pittsburgh and Habitat for Humanity providing much needed services in rehabilitating homes in need of help, it is important to adopt energy efficient practices when possible. Though many assistance programs exist to do simple things like bringing a building up to code, home performance standards should be kept in mind even when energy efficiency work is not being done. This is important in order to avoid any future energy improvements.

Past Initiatives

ReEnergize PGH Ambassador Host Community – Toni Watkins – 2013
Black and Gold City Goes Green Blitz – 2012, 2013, 2014
Community Energy Efficiency Education – 2013
Energy Carolers – 2012

conclusion

Energy efficiency as a concept, a practice, and an industry has benefits that impact individual families and broader communities.

Many of the ideas presented here have been developed through the suggestions of community partners who have either implemented such programming before, or have the vision of pursuing such projects in the future. It is with much deserved credit to all partners involved with ReEnergize Pgh at the Coalition level and at the Community level that the creation of the ReEnergize Community Action Plans has been possible.

Using this report, communities can start the conversation around what is needed in order to incorporate energy efficiency planning and programming into community activities. The members of the ReEnergize Pgh Coalition can work collaboratively to enable programming that has been recommended for each community based on their varied expertise.

appendix a

EMISSION REDUCTIONS

Estimated through Environmental Protection Agency Emissions Factors, below is a neighborhood by neighborhood snapshot of emissions reductions, and carbon sequestration equivalences that can be achieved through a 20% cut in energy use.

Community	Tons of CO2 Prevented	Acres of Forest	Miles Reduced by Passenger Cars	Pounds of Coal not Burned
Homewood	3,567	2,652	7,703,823	3,475,408
Larimer	794	590	1,715,883	774,082
Lawrenceville	5,095	3,789	11,004,722	4,964,536
Marshall-Shadeland	2,004	1,490	4,328,840	1,952,860
Mt. Washington	4,969	3,695	10,732,634	4,841,789
Oakland	7,263	5,401	15,687,406	7,077,024
Squirrel Hill	18,021	13,401	38,925,746	17,560,484
Homesatead	1,550	1,152	3,347,199	1,510,014
Millvale	1,802	1,340	3,891,428	1,755,531
Mt. Lebanon	19,490	14,493	42,098,560	18,991,828
Scott Township	8,045	5,982	17,376,834	7,839,172
Wilkinsburg	8,883	6,605	19,187,152	8,655,857

appendix b

ENERGY EFFICIENCY AND COMMUNITY BASED ORGANIZATIONS

ReEnergize Pgh developed this document for communities and Community Based Organizations (CBOs) to more intentionally incorporate energy efficiency into current and future community planning and development. ReEnergize Pgh is interested in growing the demand for energy efficiency services in Allegheny County because of the health, financial, economic, and environmental benefits tied with the industry.

Unlike many other communities, Pittsburgh was not a recipient of the Better Buildings Neighborhood Program funded by the American Recovery and Reinvestment Act, and therefore, had to start at the grass roots level. This manifested itself in the ReEnergize Pgh Ambassador Program, a neighborhood level outreach initiative. Through that program, CBOs were connected to Ambassadors as an added layer of support for all energy efficiency related outreach activities. It became evident through the course of the program, however, that CBOs are often already saturated with other projects and do not have the capacity for energy efficiency planning. This document will help alleviate that burden by recommending neighborhood-specific ideas that can compliment existing programs, or be implemented elsewhere in similar communities.

THE BENEFITS OF ENERGY EFFICIENCY : HOMEOWNER BENEFITS

Health & Safety

Probably the biggest, though least talked about, benefits of home performance retrofits are the positive health implications. Diagnostic energy audit protocols include testing appliances for gas leaks and carbon monoxide leaks. Carbon monoxide can have adverse health impacts ranging from general lack of energy, to flu like symptoms, to death in very severe conditions. Air sealing and insulation, and proper ventilation of a home can decrease the amount of mold and other allergens trapped inside. As a region with a high asthma rate, this is something for all families to consider. The benefits are reduced sick days and reduced asthma and other upper-respiratory symptoms.

Comfort

Air intrusion, whether during the summer, or the winter, can lead to discomfort for everyone living in a home. Comfort is an important factor for people who plan on long-term residence of any building. Reducing drafts, and creating even temperature throughout a living space can lead to a happier living experience for a family.

Financial

Reduced energy use benefits families financially. This is particularly true for lower income households where utilities can be a significant portion of a household's monthly expenditure. Reducing energy use allows families to put their budget towards things that bring a greater quality of life.

THE BENEFITS OF ENERGY EFFICIENCY : COMMUNITY BENEFITS

Livability

Higher performing, energy efficient homes increase livability. Whether through safety, comfort, or housing costs, residents will pay more attention to communities that offer an improving housing stock. This is particularly important in growing communities.

Economic

There are economic benefits associated with energy efficiency on several levels. This starts with the increased capital available to residents to spend in the local economy. There are industry benefits that trickle down to the

community level as well. A thriving energy efficiency industry means local jobs, performed by local contractors, hiring local workers to perform the retrofits. A recent study by the American Council for an Energy Efficient Economy, found that programs that reduce energy-use are two to three times cheaper than actually generating the same amount of energy. (Molina, 2014)

Environmental

Environmental benefits are also important at the community level, and these benefits increase as more and more communities become energy efficient. Allegheny County is known for poor air quality, and is ranked as having the worst air east of the Rockies by the American Lung Association's State of the Air Report. Greater energy efficiency means less emissions from power plants, and cleaner air for all. On the macro level, increased energy efficiency has a positive impact on climate change as well. Through Environmental Protection Agency conversion factors, it is estimated that of the 70,000 housing units in the study area, if energy use was reduced by 20%, it would prevent over 84,000 tons of Carbon Dioxide (CO₂) from entering the atmosphere. That is roughly the same amount of CO₂ sequestered by over 62,000 acres of forest. As a comparison, the city of Pittsburgh is roughly 37,000 acres. See Appendix A for environmental benefits per community.

ENERGY EFFICIENCY ROAD BLOCKS

The energy efficiency industry faces several roadblocks that are slowing it down to reaching its maximum potential here in Allegheny County. At the community level these include roadblocks in terms of program access, consumer awareness, policy, and financing.

For the purposes of this document, we will focus on addressing road blocks present at the local level, over which individuals and community organizations can have the most impact and control.

Program Access

Weatherization programs have focused on the homes of low-income families because of the significant room for improvement. Experience tells us however that these programs are often not marketed towards the right audience, or

have requirements for qualification that limit access.

At the same time, many mid-income families are also underserved for similar reasons. There should be local efforts to help consumers gain access to programs that exist, and to create programs that can low to mid-income families may access.

Consumer and Industry Awareness

It is important for both the industry, as well as the consumer base to have a better understanding of each other. On the industry side, contractors, and energy efficiency business owners must understand that messaging should vary not only based on socio-economic status, but also geography, culture, and available resources. Market research should be done in order to ensure effective messaging.

Consumers often do not know where to begin in searching for the information they need to pursue energy efficiency projects. Trustworthy energy efficiency services do exist in this region, but it may be difficult for consumers to choose a service.

Policy

The primary policy roadblock is the disclosure of energy use. Without accurate information on residential energy use, it is difficult to assess the general quality of buildings in an area. The lack of energy use disclosure also leads to inactivity by the consumer base.

Along with energy disclosure, there are also standards that can be adopted to strengthen community housing stock. For example, Allegheny County has adopted the 2009 International Energy Efficiency Code which requires home performance testing. Though there are high level policy roadblocks existing within the energy efficiency sector, there are neighborhood level guidelines that can help provide a boost for the housing stock as communities around Pittsburgh continue to navigate modernization and growth. These guidelines can include energy assessment recommendations during the sale of a house, or requiring new standards to be adopted at the time of renovation.

Financing

The greater Pittsburgh area does not have a comprehensive list of consumer financing packages, grants, and rebates. This leaves many consumers stranded when in search of financial assistance programs for energy efficiency upgrades. A comprehensive list of these programs available in a trustworthy location can help steer consumers towards available programs.

Many people do not qualify for programs that do exist. For example, in the low-income end, many assistance programs have both a financial requirement, as well as an energy use requirement. Many consumers are left outside of qualifying parameters despite having very real needs. The same is true for mid-income families who often have very important home performance issues to address, but often fall outside of the credit or income requirements of some grant and loan programs.

Work needs to be done to explore effective financing options for consumers and community organizations interested in energy efficiency retrofits in the region.

REGIONAL COMMUNITY ENERGY EFFICIENCY BACKGROUND

The region is no stranger to the world of residential energy efficiency. With organizations like Affordable Comfort Inc., ACTION-Housing, and Conservation Consultants Inc., energy efficiency has been around as a concept for the better part of four decades. Most of the work that was done in the area took place in the low income sector. As is the case nationally, as well as in Pittsburgh, the mid-income market sector has struggled.

The past decade in Pittsburgh saw strong investments in energy efficiency through the federal government in many major metropolitan areas through the American Reinvestment and Recovery Act. While many major cities like Boston, Philadelphia, and Portland received funding to develop high scale energy efficiency programming, Pittsburgh did not have a strong enough sector to garner federal support.

Having recognized this reality, organizations like those previously mentioned, stakeholders in local government, private sector groups like the Diagnostic

Energy Auditors of Western Pennsylvania, and other advocacy agencies coalesced to form what would become the ReEnergize Pgh Coalition. Through the ensuing years, auditor and contractor training, community energy efficiency outreach, education, and a strengthening coalition has brought Pittsburgh into a respectable status among similar cities.

Though Pittsburgh failed to receive ARRA funding, grass roots initiatives, and observation of programs nationally has given Pittsburgh the advantage of learning from the ground up.

