09

ENERGY AND ENVIRONMENT

PROJECT #67

Reducing energy burdens and creating healthier homes for low-to moderate income residents

Project Cost

Minimum Cost: $11,000,000

Maximum Cost: $11,213,667

***ARPA Request**: $10,000,000*

Submitter Info

Name: Mary Templeton

Organization: Michigan Saves

Project Overview

Funding Group: Community Health
Project Theme:
Energy and Environment
Project Status: New Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

$1,213,667. Participating homeowners would obtain a $1,000 Michigan Saves loan to use as a cost-share for up to $6,500 in ARPA-grant funds for a qualifying clean energy project.

Partnership

We would engage several community organizations, including Habitat for Humanity of Kent County, Green Home Institute, Healthy Homes Coalition of West Michigan, and neighborhood groups throughout the county.

Identify the need for the proposed project

Thousands of households in Kent County live with moderate to severe housing hazards, including lead paint, water intrusion, injury and safety risks, pests, and electrical deficiencies, which increase the risk for illnesses and injuries including asthma, falls, respiratory problems and lead poisoning. Besides the physical health tolls of these homes, they are often very inefficient with outdated mechanical systems, drafty and broken windows, and minimal insulation. Furthermore, the United Way has studied a segment of the population that they define as ALICE (Asset Limited, Income Constrained, Employed). This population earns above the federal poverty level but struggles to afford basic necessities, such as housing, child care, food, transportation, and healthcare. An ALICE individual, according to the United Way, is one crisis away from poverty. One of the many barriers to healthy homes and energy efficiency for lower-income and ALICE households is access to upfront capital to make the improvements. The benefits of reducing the high energy burden on these populations extend far beyond energy and utility bill savings. Participants in energy-efficiency programs benefit from improved health and safety, reduced costs associated with arrearages and shutoffs, and greater financial certainty. The concepts of energy efficiency and healthy homes are not mutually exclusive. In fact, basic energy efficiency improvements often complement the principles of a healthy home. -High-efficiency furnace: With appropriate filters, a high efficiency furnace will improve indoor air quality by removing allergens, benefitting children, seniors, and individuals with respiratory issues -High-efficiency air conditioner: Air conditioning reduces humidity in the air, which is critical for individuals with respiratory problems. Additionally, by removing humidity, air conditioning also reduces condensation on windows frames and sashes. In older homes with wood windows, this condensation can peel paint, which could contain lead, and create a mold hazard. -Air sealing and insulation: Air sealing and insulation help regulate the temperature in the home by reducing the flow of air into and out of the home. Additionally, proper air sealing and insulation is accompanied by appropriate ventilation (ridge/eave/soffit vents), which prevents moisture build-up and mold creation. -Windows and doors: Properly installed, high-efficiency windows help regulate the temperature and improve indoor air quality in the home by reducing drafts and condensation, being operable (as windows in many older homes are painted shut), and eliminating a lead hazard (if the windows being removed were originally painted with lead-based paint). Kent County residents have utilized Michigan Saves' financing programs at the fourth highest leve in the state, with nearly 2,600 residents participating and $27.8 million in loans. However, approximately 22 percent of Kent County applicants were not able to access Michigan Saves loans due to poor credit or other financial considerations. Michigan Saves sees a need for a cost-share program that combines a small loan with an ARPA-funded grant to address health, safety, and energy issues. Through this offer, we would reduce the energy and health burdens in the ALICE population and begin to address energy equity issues that face vulnerable populations.

Brief Description

Michigan Saves proposes a cost-share program that uses a community approach to deliver health, safety, and energy efficiency improvements to low-to-moderate income homeowners in Kent County. This program would serve residents who earn too much to qualify for free federal weatherization funds and most utility income-qualified programs but do not have enough income, or perhaps good enough credit, to qualify for traditional financing. This customer segment exists within every community and is overlooked when it comes to energy assistance programs. In this program, Kent County homeowners with incomes between 200 and 300 percent of the federal poverty level would be eligible for a low-interest loan from Michigan Saves and an ARPA-funded grant through Kent County for up to $7,500 of prequalified energy and building performance improvements. Interested homeowners would apply for a small loan of approximately $1,000 through a Michigan Saves authorized lender. If approved, homeowners would work with local Michigan Saves authorized contractors (there are 71 authorized contractors in Kent County) to identify and implement a scope of work that provides energy and health benefits. All remaining project costs, up to the project cap of $7,500, would be paid through the ARPA-funded grant.

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Partnership

We would engage several community organizations, including Habitat for Humanity of Kent County, Green Home Institute, Healthy Homes Coalition of West Michigan, and neighborhood groups throughout the county.

Long-Term Benefit

The primary benefit to eligible homeowners would be the immediate reduction in energy use and the corresponding reduction in utility bill costs. A secondary, yet critical, benefit of these types of installations, are the building code improvements, such as improper venting, inadequate electrical panels, and lack of carbon monoxide detectors, that would address health and safety issues often found in older housing stock.

Intended Beneficiary

Low-to- moderate income homeowners between 200 and 300 percent of the federal poverty level.

Estimated Cost

$11 million ($10 million for homeowner grants; $1 million for marketing, outreach, and administration)

Project Management Experience

Michigan Saves has extensive experience managing large statewide projects. As the nation's first nonprofit green bank, Michigan Saves has helped nearly 30,000 families, businesses, organizations, and public entities throughout the state realize their clean energy aspirations through affordable financing. Michigan Saves collaborates with six authorized lenders that provide the capital for residential loans and over 900 authorized contractors who install the energy, health, and safety improvements. Most recently, the Michigan Department of Health and Human Services granted Michigan Saves $2,000,000 to create a statewide, Lead Poisoning Prevention Fund (Lead Fund). The Lead Fund will make affordable financing available to property owners who want to abate lead-based paint hazards, but do not have access to affordable capital. The Lead Fund leverages the Michigan Saves network of authorized lenders and contractors.

Federal Funds Experience

In 2010 and 2011, Michigan Saves received $26,887,395 in American Recovery and Reinvestment Act (ARRA) funds through the State of Michigan to implement the BetterBuildings for Michigan (BBFM) Program. The BBFM program was designed to create a sustainable energy efficiency market by providing outreach and education to increase demand, a skilled energy efficiency workforce, and tools for lenders to make ongoing investments in energy efficiency in residential, commercial, and public buildings. The program relied on community-scale outreach and deep energy efficiency retrofits as catalysts for the development of economically, environmentally, and socially sustainable neighborhoods. The BBFM program included specific initiatives for disadvantaged neighborhoods in Grand Rapids.

Studies on Impact

The following research supports the effectiveness of this type of project:
Forrester, S. P., & Reames, T. G. (2020). Understanding the residential energy efficiency financing coverage gap and market potential. Applied Energy, 260, 114307. Available at https://justurbanenergy.files.wordpress.com/2020/01/1-s2.0-s0306261919319944-main.pdf.
State and Local Energy Efficiency Action Network. (2017). Energy Efficiency Financing for Low- and Moderate Income Households: Current State of the Market, Issues, and Opportunities. Prepared by: Greg Leventis, Chris Kramer, and Lisa Schwartz of Lawrence Berkeley National Laboratory. Available at https://www.energy.gov/eere/slsc/downloads/energy-efficiency-financing-low-and-moderate-income-households-current-state

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Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

Participating homeowners would obtain a small loan of approximately $1,000 to leverage up to $6,500 in ARPA-grant funds for an energy project.

Partnership

We would engage several community organizations, including Habitat for Humanity of Kent County, Green Home Institute, Healthy Homes Coalition of West Michigan, and neighborhood groups throughout the county.

Supporting Documentation

ARPA Proposal Scenarios Michigan Saves

Guidehouse Ranking Notes

Eligibility

Weatherization and other home repairs to low to moderate-income households are an eligible use of funds

Sustainability

Limited services

Feasibility

PROJECT #198

Kent County Air Quality Awareness and Engagement

Project Cost

Minimum Cost: $150,000

Maximum Cost: $150,000

***ARPA Request**: $100,000*

Submitter Info

Name: Darren Riley

Organization: JustAir Solutions Inc.

Project Overview

Funding Group: Quality of Life
Project Theme:
Energy and Environment
Project Status: Expanded Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

50,000 - Environmental Data Justice Fund (https://www.environmentaljusticedatafund.com/)

Partnership

NAACP of Grand Rapids, C4, Department of Environmental Great Lakes and Energy (EGLE)

Identify the need for the proposed project

The founder's lived experience inspired JustAir. Since being diagnosed with Asthma, Darren has been keen on supporting community awareness and solutions to create a more equitable breathing environment for our most vulnerable communities. JustAir seeks to build upon the community air quality monitoring pilot in Grand Rapids to support other communities throughout Kent County. With community partnerships with groups such as the NAACP of Grand Rapids and Community Collaboration on Climate Change (C4), JustAir seeks to continue to build partnerships throughout the county. Additionally, JustAir is keen on supporting the county towards a vision where your zip code does not determine your quality of life.

Brief Description

Our project is focused on deploying air quality monitors throughout the Kent County community to identify neighborhoods with higher levels of air pollutants. In addition, we will work collaboratively with organizations and community members to raise awareness of air pollutants and identify ways to reduce disparities in air quality within particular neighborhoods, ultimately working to improve the health and safety of our community.

Long-Term Benefit

The project's long-term outcomes are to reduce the overall levels of emission and concentration of air pollutants in Kent County's most vulnerable communities. Through the collection of data and a community-level action plan to engage in activities to improve air quality. Long-term, we hope to improve public health outcomes in the community due to improved air quality, particularly health conditions such as asthma, cardiovascular disease, and lung disease.

Intended Beneficiary

We are keen on supporting communities of color that have disproportionate rates of chronic diseases that correlate with high levels of air pollutants.

Estimated Cost

150000

Project Management Experience

While we have yet to work with a county partner, we have a number of community of city pilot experiences. This includes permitting process for equipment installation, insurance requirements, fiduciary reporting activities, etc.

Federal Funds Experience

JustAir does not have experience working with federal funds. However, we have a pending application with a community partner fiduciary that does have federal contract experience.

Studies on Impact

Research on the proposed solution for more data and community awareness: https://www.tandfonline.com/doi/full/10.1080/10810730.2019.1574320 Research on Health Disparities in Grand Rapids and Kent County: https://graahi.com/wp-content/uploads/2021/09/Health-Equity-Report...2021.pdf Research on air pollution impacts on health: https://www.weforum.org/agenda/2019/03/air-pollution-killing-more-people-than-smoking-say-scientists/

Supporting Documentation

Letters of Support

Project Cost

Minimum Cost: $150,000
Maximum Cost: $150,000
***ARPA Request**: $100,000*

Submitter Info

Name: Darren Riley
Organization: JustAir Solutions Inc.

Project Overview

Funding Group: Quality of Life
Project Theme:
Energy and Environment
Project Status: Expanded Project
Matching Funds: 0-25%

Eligibility:
Sustainability:
Feasibility:
Impact:

Source of Funding

50,000 - Environmental Data Justice Fund (https://www.environmentaljusticedatafund.com/)

Partnership

NAACP of Grand Rapids, C4, Department of Environmental Great Lakes and Energy (EGLE)

Guidehouse Ranking Notes

Eligibility

Behavioral health services are eligible

Sustainability

One time spend on monitors - maintenance concerns.

Feasibility

PROJECT #312

Climate Justice and Equity

Project Cost

Minimum Cost: $2,000,000

Maximum Cost: $2,000,000

Submitter Info

Name: Terry Gates

Organization:
Healthy Planet Strategies

Project Overview

Funding Group: Infrastructure
Project Theme:
Energy and Environment
Project Status: New Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

(Listed in main description)

Partnership

(Listed in main description)

Identify the need for the proposed project

The federal government redlined Grand Rapids on November 5, 1937 when it published the Home Owners Loan Corporation (HOLC) Map isolating ethnic and minority communities within particular areas. Redlined “D ratings" were neighborhoods characterized by detrimental influences, undesirable population, very poor maintenance, unstable incomes, and difficult collections. By overlaying the historic redlined districts with present-day demographic data, the persistent and continued relevance of racist policies play out on present-day segregation. Higher segregation is associated with lower incomes, lower educational attainment, more crime, worse health outcomes, higher inequality and climate injustices. The book, “A City within a City - The Black Freedom Struggle in Grand Rapids”, negatively portrays Grand Rapids as creating a system of managerial racism designed to keep blacks in declining inner-city areas. West Michigan has gained notoriety in recent years as a divided community that is among the nation’s fastest-growing and most prosperous for its white citizens, but among the worst for African Americans and other vulnerable populations. Climate Justice addresses the unfair exposure of poor and marginalized communities to the negative impacts associated with inequitable exposure to environmental harms. The highest levels of carbon emissions occur within the historic red-lined neighborhoods, which also houses communities where 25% or more of the population are trying to just get by with living below the poverty level. The energy burden experienced by people living in the impacted areas sometimes reaches 30-40% of a breadwinner's income.

Brief Description

The Promise of C4 is to serve as a facilitator and mediator of partnerships, of education, and of consensus building, as well as creating space for a robust “Climate Justice and Equity” movement in our community. C4’s work is to engage, resolve conflict, build strategies, share resources, align vision, and, most importantly, to shift the focus of climate justice to be more equitable. The issues of “Climate Justice and Equity” bring conversation into the public arena, which serves to educate the community, provide space for public input, and the sharing of knowledge, ideas, and best practices. Community education and engagement along with community-wide acceptance are vital to achieve steep reductions in carbon emissions through decarbonization efforts. Neighborhoods become activated with Climate Ambassadors involved in education, training, and engagement. A clear, concise and shared vision emerges from the brainstorming of ideas, setting goals, formulating plans, and dividing up the tasks. Pathways are built for positive communication, connection, and action. Everyone becomes a part of the solution. Local communities are transformed by a modernized infrastructure, generating renewable energy. Distributed Energy Resources (DER) integrate into a smart centralized distribution and transmission system. Utilities manage a variety of renewable energy sources. Efforts will be made to decrease energy burden for the most vulnerable to not more than 6% of annual income.

Long-Term Benefit

Energy will be affordable, accessible, equitable, efficient, clean, and reliable. The federal and state government provides technical and funding assistance. Advancements in technologies make using renewable energy one of the most effective ways to save money, reduce greenhouse gas emissions, create jobs, and meeting growing demand. Resources will be provided for consumers to self-identify practical solutions for their own energy usage. Communities are transformed by modern infrastructure.

Project Cost

Minimum Cost: $2,000,000

Maximum Cost: $2,000,000

Submitter Info

Name: Terry Gates

Organization:
Healthy Planet Strategies

Project Overview

Funding Group: Infrastructure
Project Theme:
Energy and Environment
Project Status: New Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

(Listed in main description)

Partnership

(Listed in main description)

Intended Beneficiary

Beneficiaries Grand Rapids continues to see strong economic growth across the majority of the city. However, a closer look at the data shows that two communities in the near-south and near-west side – home to 32% of Grand Rapids' population – are excluded from this economic growth, as evidenced by lower rates of educational attainment and higher rates of unemployment and poverty. These neighborhoods are characterized by higher populations of people of color, lower incomes, and higher levels of climate injustice. In 2018, the Kellogg Foundation established Neighborhoods of Focus via the Mark White report. Seventeen Census tracts were identified in the southeast and west parts of Grand Rapids that are behind, on several metrics, than other parts of the city. In the beginning, efforts will be concentrated within the Neighborhoods of Focus, and then eventually rolled out countywide based on lessons learned from early adoption practices. The whole county will eventually be supported to improve the social determinants of health. The entire process will be inclusive of all businesses, organizations and individuals, especially youth. New systems will be built to address climate change centered in wellbeing, the interconnectedness of life and access to shared leadership. Systemic barriers will be challenged to create a just climate future for all. What is best for the community will always be at the center of the conversation. A pathway to success will come from technical expertise and capacity building, engagement with local, state and national government, access to capital, customer engagement and connecting with the hearts and minds of stakeholders. Helping others understand the journey, process and outcomes to come alongside to create systemic change is critical. Collective and collaborative action is needed. A move towards just and circular economic principles should be centered, while moving away from individualistic and capitalistic centered solutions. Residents will be in control of their own sustainable energy future built by the community for the community. A modern energy infrastructure transforms communities into becoming renewable energy generators designed to achieve tangible economic and environmental benefits.

**Partnership*

Community Collaboration for Climate Change (C4) Consumers Energy US - Dept of Energy (DOE), energy.gov, grants.gov National Community Solar Partnership (NCSP) Grid-Integrated Efficient Buildings (GIEB); bioenergy office; solar office. US - Dept of Health and Human Services US - Green Building Council West Michigan Green Building Council Great Lakes Renewable Energy Association Debbie Stabenow/Winnie Brinks/Rachel Hood MI Energy Options Chart House Energy MI Saves Raise Green MI - EGLE MI - Energy Office (part of EGLE) Catalyst Partners Climate Justice Alliance Michigan League of Conservation Voters Michigan Environmental Justice Coalition Michigan United Kent County Essential Needs Task Force City of Grand Rapids - Office of Sustainability Grand Rapids 2030 District Michigan Women Forward NAACP Grand Rapids University of Michigan Michigan State University Grand Valley State University Western Michigan University Aquinas College Hope College Davenport University Grand Rapids Community College Grand Rapids Climate Coalition - 64 members West Michigan Environmental Action Council (WMEAC) West Michigan Climate Reality Project Hispanic Center of West Michigan Urban Core Collective Sunrise Movement Grand Rapids African American Task Force West Michigan Sustainable Business Forum Grand Rapids - Water Utility Kent County - Water Utility Kent County Community Action Ann Arbor - Office of Sustainability and Innovations Ann Arbor - Sustainable Energy Utility (SEU) Boston Square Neighborhood Association Amplify GR Seeds of Promise LINC UP Sierra Club All Souls Community Church Kent Democratic Party Kaufman Institute Climate Witness Project Citizens Climate Lobby Bethany Christian Services American Red Cross of Greater Grand Rapids Habitat for Humanity Michigan Utility Consumer Representation Fund (UCPF) Grand Rapids Community Foundation

Project Cost

Minimum Cost: $2,000,000

Maximum Cost: $2,000,000

Submitter Info

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Project Overview

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Project Theme:
Energy and Environment
Project Status: New Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

(Listed in main description)

Partnership

(Listed in main description)

Estimated Cost

$2,000,000.00

**Source of Funding*

Grand Rapids is a very philanthropic community. If matching funds are needed, they can be found by funders who are looking for ways to allocate their dollars for worthy causes. The Grand Rapids Public Library has a foundation data base we could use to come up with other sources of funding.

Project Management Experience

If the project is approved, we would hire a consultant who has experience managing/leading large county-wide projects.

Federal Funds Experience

If the project is approved, we would hire a consultant who has experience working with federal funds.

Studies on Impact

We are working closely with Tom Stanton, who was a clean energy policy analyst with over 40 years experience in state energy and public utility regulatory policies. He was also the Principal Researcher for Renewable Resources and Energy Efficiency at National Regulatory Research Institute (nrri.org). With his experience, he can provide numerous research studies. There has been tons of research done, too many to list, of projects across the nation that will validate the effectiveness of this project.

Guidehouse Ranking Notes

Eligibility

While the beneficiaries are eligible, it is unclear whether the program itself would be eligible. There are risks here. Program would likely have to be molded to be more eligible.

Sustainability

Lacking guaranteed funding though partners were identified

Feasibility

It is unclear the capacity of this organization to complete this task

PROJECT #131

Rouge River Dam Hydroelectricity study and preliminary design Dam

Project Cost

Minimum Cost: $100,000

Maximum Cost: $100,000

Submitter Info

Name: Noah Greco

Organization: City of Rockford

Project Overview

Funding Group: Infrastructure
Project Theme: Water and Sewer
Project Status: New Project
Matching Funds: 0-25%

Eligibility:

Sustainability:

Feasibility:

Impact:

Source of Funding

City of Rockford ARPA funds. The City will match 10% ($10,000)

Partnership

n/a

Identify the need for the proposed project

Hydroelectricity at the City's dam is something the City has considered for a long period of time. A study was done in 1985 that would need to be updated.

Brief Description

The purpose of this project is to secure funding to cover the consulting fees and preliminary design to explore hydroelectricity at the City's dam on the Rouge River. The City is interested in figuring out the viability of the physical location. The consulting would also be used to determine if the project makes sense from a financial standpoint.

Long-Term Benefit

The long-term benefit of this project involves increasing the City's use of clean energy, reducing its carbon footprint, and lower energy costs for government operations. It would achieve a step in our Climate Action Plan.

Intended Beneficiary

This project will benefit the City, it's residents, and the surrounding community's

Estimated Cost

$100,000.00

Project Management Experience

The City of Rockford recently received a $500,000 Community Development Block Grant for the construction of new sidewalks to link Low to moderate income homes to City amenities.

Federal Funds Experience

The City also has experience working with federal funds. The most recent example of this is a $5,000,000 grant the City received for the extension of a watermain.

Studies on Impact

Dam restoration does not appear to be necessary, so this is not cost-effective project

Guidehouse Ranking Notes

Eligibility **Sustainability** **Feasibility**

Individuals or communities served is not clear or does not align with Treasury guidelines' definition of 'impacted' or 'disproportionately impacted'.