

## CPRG IMPLEMENTATION GRANTS COMPETITION COVER PAGE FOR APPLICATION

### APPLICANT INFORMATION

<b>Organization</b>	City of Wheeling, West Virginia
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**TYPE OF APPLICATION**     ☐ Individual Applicant     ☒ Lead Applicant for a Coalition

*If lead applicant for a coalition, provide a list of the coalition members below.*

City of Wheeling, West Virginia City of Moundsville, West Virginia Marshall County, West Virginia Ohio County, West Virginia
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**FUNDING REQUESTED:** *Provide total EPA CPRG Implementation Grant funding requested.*

\$ 35,000,000
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**APPLICATION TITLE:** *Provide the title of your proposed project.*

Wheeling, Moundsville, and Marshall and Ohio Counties Energy Efficiency Program
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**BRIEF DESCRIPTION OF GHG MEASURES:** *Describe each GHG reduction measure contained in the application (1-2 sentences each).*

The funding will support an energy efficiency (EE) grants program that will provide recipients in the residential, commercial, industrial, government, and community sectors with partial funding for EE and distributed generation upgrades. The funding will also be used to support local workforce development and training programs to ensure an adequate supply of qualified workers and contractors to meet increased demand in EE-related fields, including HVAC, door and window replacement, insulation, distributed generation, and specialty construction.
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## WORKPLAN

### 1. OVERALL PROJECT SUMMARY AND APPROACH

#### a. Description of GHG Reduction Measures

The cities of Wheeling and Moundsville and surrounding Ohio and Marshall Counties in West Virginia propose to implement a local energy efficiency (EE) grants program that will provide recipients in the residential, commercial, industrial, and government sectors with partial funding for EE upgrades. The \$35 million in funding, which is being requested, will also be used to support local workforce development and training programs to ensure an adequate supply of qualified workers to meet increased demand in EE-related fields including HVAC, door and window replacement, appliance installation, insulation, distributed solar, and specialty construction.

The program, which will disburse local grants over a period of ten years, will be modeled on successful utility energy efficiency programs and will offer end-user subsidies in 8 categories – Heating, Ventilating, and Air Conditioning; Insulation and Sealing; Appliances; Water Heating; Smart Thermostats and Home Systems; Doors, Windows, and Structural Upgrades; Distributed Solar; and Specialized Upgrades for Manufactured Homes. Outcomes will include major reductions in greenhouse gas and criteria pollutant emissions at a highly competitive cost.

Residential upgrades will be funded according to a menu that specifies eligible measures and technologies and corresponding subsidy levels. Low and moderate-income residents will be eligible for enhanced benefits. Applications for commercial, industrial, and government upgrades, which are by their nature more sizable and are often unique in their characteristics, will be considered individually by an appointed grants board composed of representatives from each of the participating applicants as well as community-based groups. The grants board will be responsible for ensuring that funds are disseminated efficiently and fairly and that they achieve the program's goals for pollution reduction, cost, and community benefits.

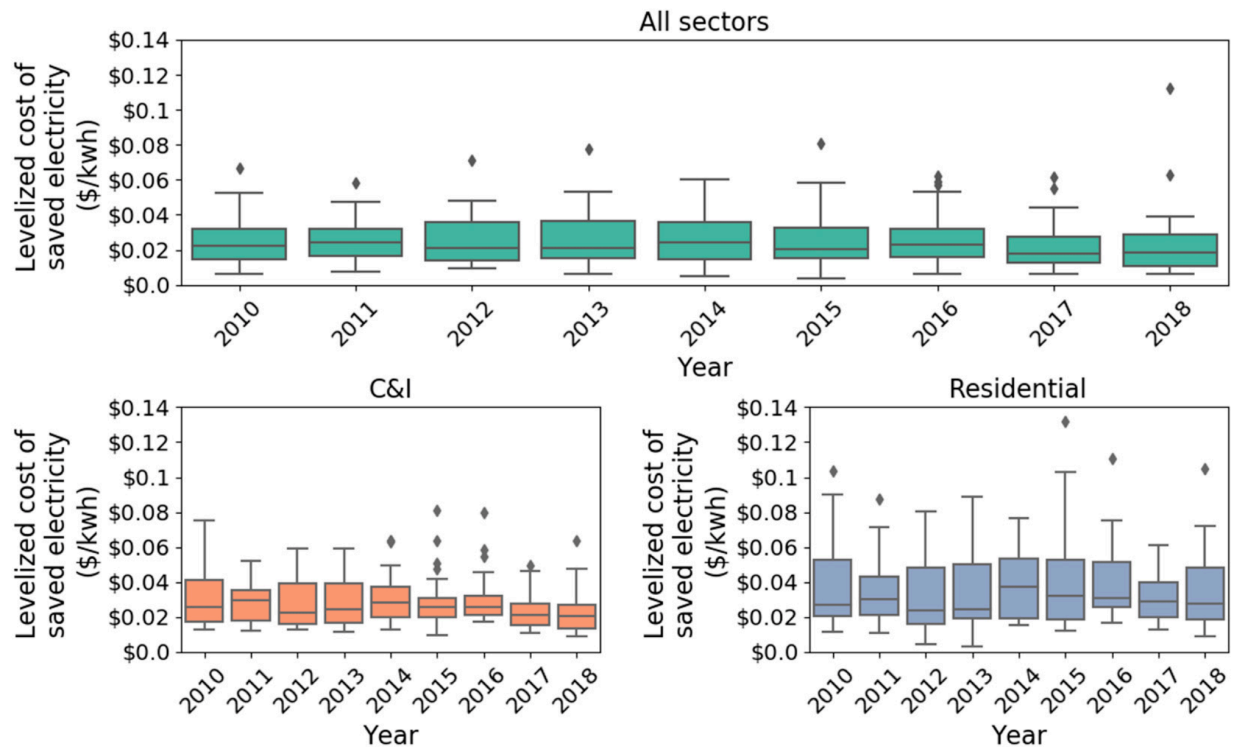
Based on the observations and assumptions, which are documented below, the proposed program will save 345,709 MTCO<sub>2</sub> between 2025 and 2030 at a cost of \$101.24 per MTCO<sub>2</sub>. By 2050 the program will have saved 1,030,702 MTCO<sub>2</sub> at a cost of \$33.96/MTCO<sub>2</sub>.

The effectiveness and efficiency of energy efficiency programs such as the one proposed has been demonstrated in ongoing research by Lawrence Berkeley National Laboratory. In their 2019 paper, Schwartz et al.<sup>1</sup> found that, nationally, administrator costs of retail energy efficiency programs in the public utility electric sector averaged \$0.024/kWh or \$24/MWh between 2012 and 2017. In the midwest, where the utility that serves Ohio and Marshall Counties is based, the cost was \$0.014/kWh and, in the southeast region, of which West Virginia is a part, the average cost was \$0.024/kWh.

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<sup>1</sup> [https://emp.lbl.gov/sites/default/files/emp-files/cost\\_of\\_saving\\_electricity\\_for\\_pous\\_webinar\\_fin\\_20200115.pdf](https://emp.lbl.gov/sites/default/files/emp-files/cost_of_saving_electricity_for_pous_webinar_fin_20200115.pdf)

These findings are built upon in a 2023 paper by Murphy and Frick<sup>2</sup>, which expanded the study period to 2010-2018. Murphy and Frick found that, by 2018, the average cost of saved electricity nationally had declined to \$0.021/kWh.



Murphy and Frick, 2023

Consistent with these findings, the electricity component of the proposed Wheeling program is expected to achieve a \$0.021/kWh levelized cost of saved electricity and reduce electricity consumption at a rate of 1.2% of retail sales annually.

Based on a 2020 Lawrence Berkeley National Laboratory report by Schiller et al.<sup>3</sup>, natural gas consumption reductions will be achieved at an average cost of \$.40/therm and at a savings rate of 0.66% per year. These findings put the proposed energy efficiency program very much in line with electricity energy efficiency programs nationally for annual savings and levelized cost of saved electricity.

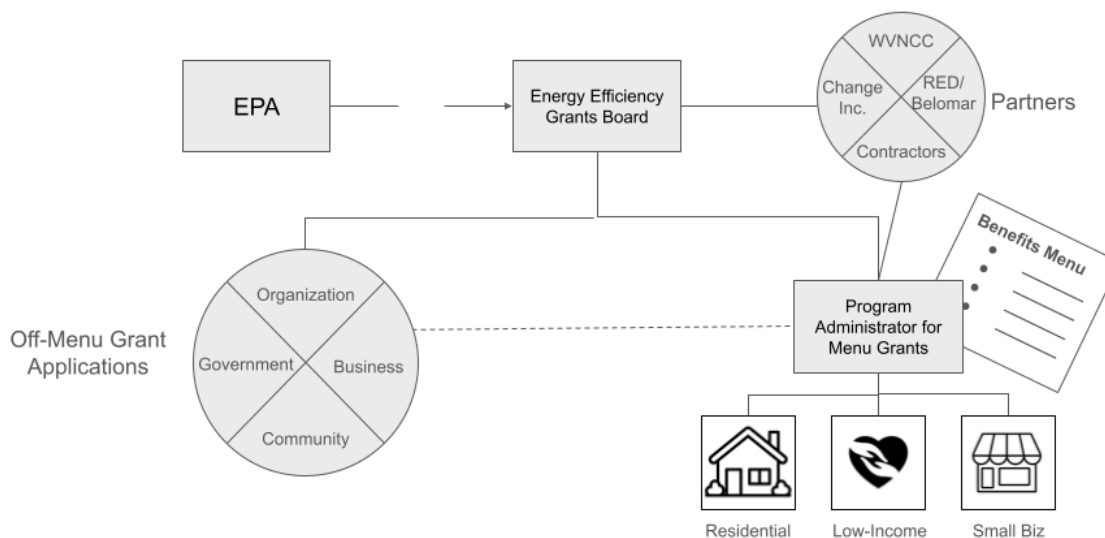
Going forward, as new EE investments are made and savings from previous years' investments carry over, it is expected that annual savings in the program's fifth and last year of grantmaking will be equivalent to nearly 4.9% of current consumption. From that point forward, annual savings will gradually decline as the upgrade measures taken during the program period age and their effectiveness diminishes.

<sup>2</sup> [https://eta-publications.lbl.gov/sites/default/files/public\\_power\\_cost\\_of\\_saving\\_electricity\\_final.pdf](https://eta-publications.lbl.gov/sites/default/files/public_power_cost_of_saving_electricity_final.pdf)

<sup>3</sup> [https://eta-publications.lbl.gov/sites/default/files/cose\\_natural\\_gas\\_final\\_report\\_20200513.pdf](https://eta-publications.lbl.gov/sites/default/files/cose_natural_gas_final_report_20200513.pdf)

## Program Administration & Key Partners

### A logical view of the Energy Efficiency Grants program



The proposed program will require two administrative bodies. Overarching authority will belong to an appointed Energy Efficiency Grants Board, which will have nine to fifteen seats and will be composed of representatives from each of the grant applicants as well as representatives from various community groups to be selected by the applicants. The Grants Board, whose members will be unpaid, will have three major responsibilities. First, the Grants Board will monitor program performance and ensure that grantmaking activity is conducted efficiently and in line with the program’s objectives, strategies, and other guidelines. Second, the Grants Board will be responsible for assessing “off-menu” grant applications from government, commercial, industrial, and community groups.

“Off-menu” grant applications are those that request funding for energy efficiency or related measures that are either not covered by the program’s approved menu of measures or that are of a size or scale that the menu does not offer funding commensurate with the opportunity for energy savings and other benefits. Typically, these applications will come from government, commercial, industrial, or community bodies. The Grants Board will assess “off-menu” applications and make awards based on their value in reducing greenhouse gas emissions, the associated cost, and the degree to which they contribute to the program’s overall objectives for emissions reduction and cost-effectiveness. The Grants Board will also consider related costs and benefits, including community impacts such as criteria pollutant reduction, job creation, impact on low-income communities, and other justice considerations.

Finally, the Grants Board will oversee the operations of the Program Administrator’s Office. The Program Administrator’s Office will be headed by a director who will be assisted by three to four employees who will be responsible for managing menu-based grant applications and awards and assuring that work funded by CPRG grants is done to acceptable standards and at a reasonable cost.

Most of the grant applications and disbursements managed by the Program Administrator's Office will come from the residential and small commercial sectors. The principal functions of the office will be to consider and approve or reject applications taking into account pricing and the qualifications of proposed contractors service providers. The Grant Administrator's Office will also be responsible for promoting the Energy Efficiency Grants Program to the general public as well as to prospective government, business, and community recipients.

Separate from, but in coordination with the Program Administrator's Office, the community action agency, CHANGE, Inc. will administer the program among low and moderate income households. CHANGE, Inc. serves northern West Virginia (*Hancock, Brooke, Ohio, and Marshall Counties*) and Jefferson County, providing an array of housing and health-related services and programs and services to those in need.

The Energy Efficiency Grants Program and the Program Administrator's Office will be projects of the Grantee under the direction of the Energy Efficiency Grants Committee. Program employees would maintain offices at the Bel-O-Mar Regional Council. The Bel-O-Mar Regional Council was established by the West Virginia Legislature in 1969 as one of eleven regional councils created throughout West Virginia. Bel-O-Mar's primary purpose is to foster cooperation for the planning and development of community and economic development and transportation projects. Its service area originally included Ohio and Marshall Counties in West Virginia and Belmont County in Ohio. That service area was expanded in 1972 to include Wetzel County in West Virginia. Both Bel-O-Mar and CHANGE, Inc. are highly experienced in administering federally funded grant-based programs specifically in the areas of weatherization and energy efficiency.

In addition to these administrative bodies, the Energy Efficiency Grants Program will also engage partners in the field of workforce development and training in order to ensure that increased demand for energy efficiency workers is met with an adequate supply of skilled applicants. Foremost among these partners is West Virginia Northern Community College, with its main campus located in Wheeling.

West Virginia Northern's Center for Economic and Workforce Development contributes to economic development of the area by enhancing the regional workforce through training, continuing education, and consulting for individuals and employers. Relying upon partnerships and a flexible learning methodology that allows for customized solutions, the Center addresses workforce development needs of the emerging, existing, entrepreneurial and developmental workforces through specific programs in Continuing Education, technical education partnerships, the Small Business Development Center, and customized training. In addition, the Center is responsible for the College's Flexible Degree programs.

### **Risks**

Although the effectiveness of energy efficiency programs is well-established and documented, there are risks. Program performance could be reduced by increases in interest rates and other macroeconomic factors, which might cause potential grant recipients to hesitate to make the financial commitments that will be required of them. In such a scenario, the cost of saved energy would rise and the amount of

energy and emission savings would be less than expected. Of course, changes in macroeconomic conditions would also impact other GHG emission reduction strategies as well.

A second risk is that the supplier sectors most directly affected by the program, especially contractors in the building trades, might struggle to find qualified workers who will be needed to help them meet increased demand for their services. In that scenario, prices for services would likely rise, which in turn would increase the program's levelized cost of savings and, therefore, reduce the total energy and emission savings that would be realized. For that reason, a portion of the grant funds will be used to subsidize worker training programs at the local West Virginia Northern Community College and area high schools in order to assure a constant and adequate flow of qualified job applicants.

### **PCAP**

The common characteristic shared by all of the proposed program's areas of investment - Heating, Ventilating, and Air Conditioning; Insulation and Sealing; Appliances; Water Heating; Smart Thermostats and Home Systems; Doors, Windows, and Structural Upgrades; Distributed Generation; and Specialized Upgrades for Manufactured Homes - as well as investments in education to build a qualified workforce, is that each of them will result in reduced energy consumption. These strategies and outcomes align with the strategies enumerated in Section 2.3.3 of the EnergyWise West Virginia Priority Energy Action Plan<sup>4</sup>.

### **b. Demonstration of Funding Need**

Existing federal and state programs that support energy efficiency and weatherization offer levels of funding that are capable of meeting only a tiny fraction of the requirements of the proposed program.

#### **The Bipartisan Infrastructure Law<sup>5</sup>**

Funding made available by the Bipartisan Infrastructure Law is inadequate to support the proposed Energy Efficiency program for which we seek a grant of \$35 million. As of January 2024, West Virginia has received \$119.8 million in BIL funding related to Clean Energy and Power<sup>6</sup>. Of that, \$28.9 million is devoted to weatherization statewide with an additional \$3.3 million through the Energy Efficiency and Conservation Block Group Program. These combined funds of \$32.2 million are less than the amount required for the proposed Energy Efficiency Program and they must serve a statewide population of 1,774,035 of which Marshall and Ohio Counties' combined population of 71,199 represents only 4%.

#### **Inflation Reduction Act**

Inflation Reduction Act funding through the Department of Energy<sup>7</sup> is also insufficient to support a program as intense as the one being proposed. Of the \$8.8 billion in available home efficiency and electrification rebates, just \$88 million is allocated for West Virginia. With just 4% of West Virginia's population, Marshall and Ohio Counties' share of the \$88 million comes to just \$3.5 million. Inflation Reduction Act rebates also offer a limited menu of qualifying measures and place caps and apply

<sup>4</sup> <https://www.energywv.org/assets/files/CPRG/WV-Priority-Energy-Action-Plan.pdf>

<sup>5</sup> <https://www.whitehouse.gov/build/guidebook/>

<sup>6</sup> <https://www.whitehouse.gov/wp-content/uploads/2023/10/West-Virginia-Fact-Sheet.pdf>

<sup>7</sup> <https://www.energy.gov/node/4825689>

restrictions to some measures that reduce the potential emission reduction, equity, and economic benefits of the funding.

### Other Sources

Separate from BIL and IRA funding, West Virginia had received just \$31.9 million from the Weatherization Assistance Project (WAP) between 2015 and 2023 and \$5.2 million from the State Energy Program (SEP)<sup>8</sup>. Finally, Appalachian Power<sup>9</sup>, the investor-owned utility that serves Marshall and Ohio Counties, offers only a limited menu of energy efficiency incentives and caps most incentives, even those for HVAC upgrades that regularly cost \$12,000 or more at less than \$750.

### **c. Transformative Impact**

The proposed energy efficiency program represents the first application of a heavily studied model for effective economic transition and emission reduction for fossil fuel communities. The Centralia Model for Economic Transition in Distressed Communities was presented at the recent United Nations Climate Conference (COP 28) by the United States and seven other countries as part of the Net Zero World Initiative<sup>10</sup>. The Net Zero World Initiative leverages expertise across U.S. government agencies and U.S. Department of Energy (DOE) national laboratories, including NREL, for a whole-of-government approach focused on advancing the decarbonization of global energy systems.

The Centralia Model is based on the case of Centralia, Washington and surrounding Lewis County, a rural coal mining community, which had lost its largest employer, a coal mine, and in which another major employer, a coal-fired power plant, was scheduled for closure. But rather than suffering economic calamity, which was widely anticipated in a community that had experienced no job growth in the preceding two decades, Centralia experienced a remarkable economic turnaround. This turnaround was first observed in a 2021 Ohio River Valley Institute report<sup>11</sup>.

Starting in 2016, Centralia began adding jobs at twice the rate of the US economy. Incomes grew 50% faster than incomes nationally. And Centralia and Lewis County's population grew by 10.3%. Energy consumption grew at only about half that rate. That's because the principal driver of the economic revival was an energy efficiency program like the one being proposed for Ohio and Marshall Counties.

The Centralia program received \$55 million in transition funding from TransAlta Corporation, the owner of the coal mine and power plant, after an agreement was reached with the state of Washington that will result in the eventual retirement of the power plant at the end of 2025. Local grantmaking commenced in 2016 and will continue through 2025, supporting residential, commercial, industrial, and community and government investments in energy efficiency, distributed generation, and education as well as investments in education, worker training, and workforce development. The effects of Centralia's

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<sup>8</sup> <https://www.energy.gov/scep/articles/state-and-community-energy-programs-project-map-west-virginia>

<sup>9</sup> <https://takechargewv.com/>

<sup>10</sup> <https://www.anl.gov/esia/reference/fossil-fuel-transitions-framework>

<sup>11</sup> <https://ohiorivervalleyinstitute.org/wp-content/uploads/2021/07/The-Centralia-Model-FINAL.pdf>

program were quantitatively assessed in a study by economists at Ohio State University's Department of Agricultural, Environmental, and Development Economics<sup>12</sup>.

The Ohio State study found that Centralia's economy is structurally and historically similar to the economies of many communities in Appalachia and the midwest. In those places, the report concluded, the measures applied in Centralia and the results achieved there are likely to be replicable. Based on that assessment and other evidence, we calculate that the energy efficiency investments described in this proposal will result in Ohio and Marshall County residents receiving utility bill relief of \$33,614,243 between 2025 and 2030 and savings of \$124,808,311 between 2025 and 2050. And, when grant funds, utility bill savings, and supplemental investments by grant recipients are taken into account, Ohio and Marshall Counties will see \$118,124,611 injected into their economy between 2025 and 2030 and \$200,177,284 between 2025 and 2050. We have not calculated how that increase in the level of commerce will impact jobs, income, and possibly population. But, if the results in Centralia are indicative, the impact should be considerable.

By funding this proposal, EPA can give wings to a model that offers dozens of distressed communities in Appalachia and elsewhere, where energy transition poses significant challenges, a blueprint for reducing greenhouse gas emissions very cost-effectively while also increasing economic prosperity. That these outcomes will be demonstrated in the Wheeling metropolitan area makes the case even more compelling because the Interagency Working Group, in which EPA is a participant, ranks Wheeling third<sup>13</sup> nationally among Priority Energy Communities.

## 2. IMPACT OF GHG REDUCTION MEASURES

- Emissions reductions of 345,709 MTCO<sub>2</sub> between 2025 and 2030 and 1,030,702 MTCO<sub>2</sub> between 2025 and 2050.
- The cost of these reductions will be \$101.24/MTCO<sub>2</sub> for the period 2025-2030 and \$33.96/MTCO<sub>2</sub> for the period 2025-2050.
- The energy savings will result in utility bill relief of \$33,614,233 between 2025 and 2030 and \$124,808,311 in savings between 2025 and 2050.
- Taking into account grant funds, utility bill savings, and supplemental investments by grant recipients, Ohio and Marshall Counties will see \$118,124,611 injected into their economy between 2025 and 2050 and \$2200,177,384 between 2025 and 2050.

These findings are based on three major assumptions:

- The electricity and natural gas components of the program will achieve a levelized costs for saved energy that are about average for electricity and gas programs nationally: \$.021 per kWh for electricity programs<sup>14</sup> and \$.40 per therm for natural gas programs<sup>15</sup>.

<sup>12</sup> [https://ohiorivervalleyinstitute.org/wp-content/uploads/2023/09/Centralia\\_Final-1.pdf](https://ohiorivervalleyinstitute.org/wp-content/uploads/2023/09/Centralia_Final-1.pdf)

<sup>13</sup> <https://energycommunities.gov/priority-energy-communities/>

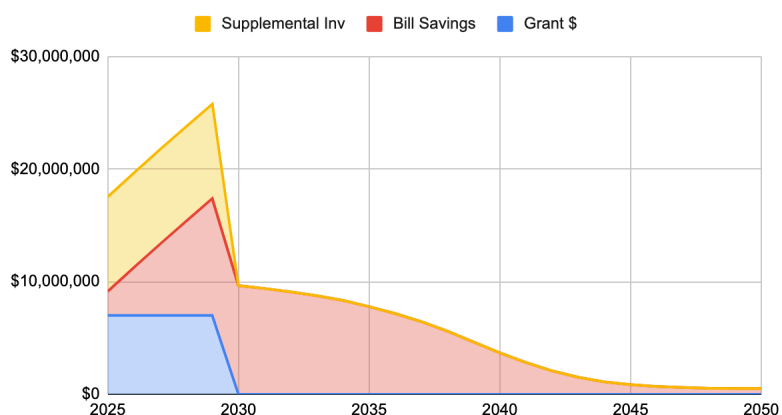
<sup>14</sup> <https://eta.lbl.gov/publications/estimating-drivers-cost-saved>

<sup>15</sup> [https://eta-publications.lbl.gov/sites/default/files/cose\\_natural\\_gas\\_final\\_report\\_20200513.pdf](https://eta-publications.lbl.gov/sites/default/files/cose_natural_gas_final_report_20200513.pdf)



- The report assumes an emissions rate of one metric ton of CO<sub>2</sub> for every 181.82 therms of natural gas and 1,958.90 pounds of CO<sub>2</sub> for every MWh of coal-fired power generation. The latter figure is consistent with data found in the EPA's EGrid Explorer for West Virginia, where, in 2022, 89.5% of electricity was generated from coal<sup>16</sup>.

Economic Stimulus, 2025 - 2050



- Levels of electricity and natural gas consumption in Ohio and Marshall counties are presumed to be about the same as they were in 2016, which is when NREL last reported data at the county level<sup>17</sup>. However, expenditures for electricity and natural gas and corresponding expenditures in the two counties have been adjusted to reflect 2022 retail price levels as reported by the Energy Information Administration (EIA)<sup>18 19 20</sup> and the American Gas Association<sup>21</sup> respectively.

These assumptions, the performance model, and the outcomes it produces are quite conservative in that they do not take into account any measures that the Grants Board or the Program Administrator may take to improve or optimize performance. For instance, the model assumes that funding will be allocated on a proportional basis equally to efficiency measures for natural gas and electricity. However, once the program is implemented, the Grants Board and the Program Administrator's Office may use pricing and marketing levers to focus more of the effort on electricity efficiency upgrades, which are more cost-effective and productive than natural gas measures.

The performance modeling also does not take into account added energy efficiency resources that may be provided by the local electric utility, Appalachian Power, a subsidiary of American Electric Power. Appalachian Power currently offers only modest energy efficiency incentives across a limited range of functions. And, perhaps most importantly, the model does not take into account energy system benefits resulting from reduced load growth and reduced peak load growth, both of which translate into less need for new generation or more expensive GHG mitigation technologies such as carbon capture and sequestration and generating power with clean hydrogen..

<sup>16</sup> [https://www.carbonfootprint.com/docs/2023\\_02\\_emissions\\_factors\\_sources\\_for\\_2022\\_electricity\\_v10.pdf](https://www.carbonfootprint.com/docs/2023_02_emissions_factors_sources_for_2022_electricity_v10.pdf)

<sup>17</sup> <https://data.openenr.org/submissions/149>

<sup>18</sup> [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table\\_5A.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table_5A.pdf)

<sup>19</sup> [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table\\_5A.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table_5A.pdf)

<sup>20</sup> [https://www.eia.gov/electricity/sales\\_revenue\\_price/pdf/table\\_5A.pdf](https://www.eia.gov/electricity/sales_revenue_price/pdf/table_5A.pdf)

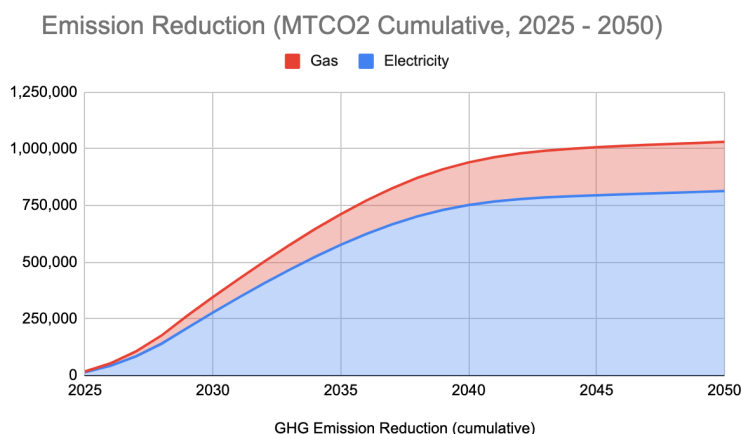
<sup>21</sup> <https://www.aga.org/wp-content/uploads/2023/01/Table9-3.pdf>

**a. Magnitude of GHG reductions from 2025 through 2030 and from 2025 through 2050**

Department of Energy “City and County Energy Profiles”<sup>22</sup>, as reported by NREL, show that, in 2016, Ohio and Marshall Counties’ combined CO<sub>2</sub> emissions came to 1,767,637 metric tons when adjusted for the 89.5% share of electricity generated from coal-fired power plants. These figures are based on electricity consumption of 1,338,170 MWh and natural gas consumption of 10,523,965 MCF.

	CO <sub>2</sub> e					
	Residential Electric	Residential Gas	Commercial Electric	Commercial Gas	Industrial Electric	Industrial Gas
	CO <sub>2</sub> Metric Tons	CO <sub>2</sub> Metric Tons	CO <sub>2</sub> Metric Tons	CO <sub>2</sub> Metric Tons	CO <sub>2</sub> Metric Tons	CO <sub>2</sub> Metric Tons
Marshall	152,083	36,044	70,288	21,391	249,037	328,633
Ohio	183,981	61,372	341,128	116,994	192,505	14,181
Total	336,064	97,416	411,416	138,385	441,542	342,814
<b>Grand Total</b>	<b>1,767,637</b>					

This application assumes that the proposed program will reduce electricity consumption by 1.2% annually and natural consumption by 0.66% annually for each year that grants are made and will continue to do so until 2050 but at progressively declining levels of performance over time. Based on these assumptions, a program implemented in 2025 can be expected to avoid a cumulative 345,709 MTCO<sub>2</sub> emissions by 2030 and 1,030,702 MTCO<sub>2</sub> by 2050.



These findings align with research by Murphy and Deason<sup>23</sup>, which documented the rate at which the effectiveness of electricity and natural gas energy efficiency measures deteriorates over time. It should also be noted that the emissions and savings figures cited above do not include emissions from seven major industrial facilities in Ohio and Marshall Counties that are part of the EPA’s Greenhouse Gas Reporting Program<sup>24</sup>, which records CO<sub>2</sub>e levels from stationary sources that emit more than 25,000 MTCO<sub>2</sub> annually. These seven facilities, which include three coal mines and a 1,500 MW coal-fired power plant, emitted nearly 8 million tons of CO<sub>2</sub>e in 2022.

<sup>22</sup> <https://catalog.data.gov/dataset/city-and-county-energy-profiles-60fbd>

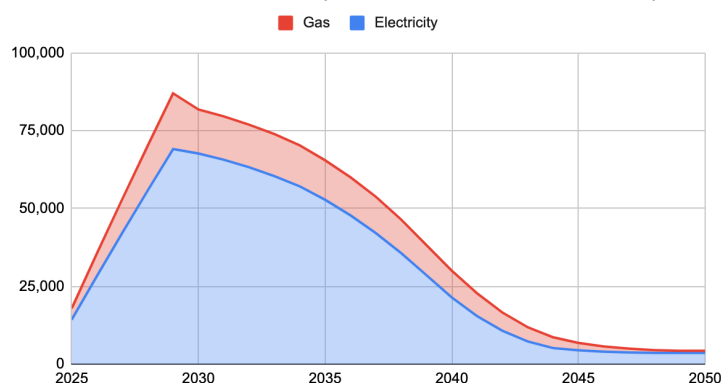
<sup>23</sup> [https://eta-publications.lbl.gov/sites/default/files/efficiency\\_lifetime\\_technical\\_brief\\_final\\_20200728.pdf](https://eta-publications.lbl.gov/sites/default/files/efficiency_lifetime_technical_brief_final_20200728.pdf)

<sup>24</sup> <https://www.epa.gov/ghgreporting/ghgrp-emissions-location>

Year-by-year emission reduction figures illustrate the decline in the effectiveness of energy efficiency upgrades that takes place over time.

The assumption of a 1.2% level of incremental demand reduction for electricity and 0.85% for natural gas in each of the ten years in which the program will be active is supported both by the experience in Centralia and by LBNL analyses of public electric utility energy efficiency program performance.

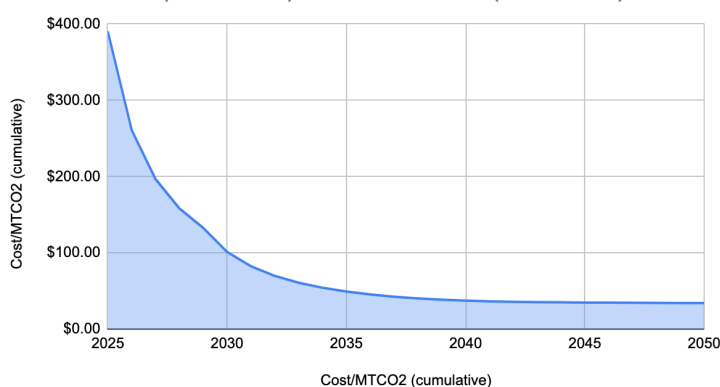
Annual Emission Reduction (metric tons CO<sub>2</sub>, 2025 - 2050)



### c. Cost Effectiveness of GHG Reductions

If funded at the requested level of \$35 million, the proposed program will save 345,709 MTCO<sub>2</sub> from 2025 through 2030 and will do so at a cost of \$101.24 per MTCO<sub>2</sub>. By 2050 the program will eventually save 1,030,702 MTCO<sub>2</sub> at a cost of \$33.96 per MTCO<sub>2</sub>.

Cost/MTCO<sub>2</sub> (cumulative) vs. Cost/MTCO<sub>2</sub> (cumulative)



Please note that these figures are the “administrator” costs of the program and do not include the supplemental funds that grant recipients will contribute to pay for their energy efficiency upgrades. Setting grant levels that optimize investment by grant recipients will be one of the program’s chief operational goals because doing so will maximize program efficiency and the amount of emission reductions, while also compounding the economic benefits to the community.

Tactically, this means setting grant amounts for the program’s large menu of eligible efficiency upgrades, at levels sufficient to improve prospective recipients’ return on investment outcomes, thereby inducing them to make energy efficiency investments that they otherwise would not find cost-effective.

An exception to this cost-optimization strategy will be the portion of the program dedicated to low and moderate income participants, whose efficiency upgrades will be more heavily subsidized and who will receive some upgrades at no cost. It should be noted however that, while the low and moderate income component of the program will be less cost-effective than the program as a whole, this impact has been taken into account in program cost and performance calculations.

The program's ultimate "cost of savings" figures of \$1.1.24 per MTCO<sub>2</sub> for the 2025-2030 window and \$33.96 per MTCO<sub>2</sub> for the 2025-2050 window are highly competitive in comparison to many federal incentives for carbon reduction, which range from \$85 per MTCO<sub>2</sub> for carbon capture and sequestration to well over \$100 per MTCO<sub>2</sub> for clean hydrogen, direct air capture, and other technologies. And, while the proposed program will begin delivering savings almost immediately, many other carbon reduction strategies, particularly in the industrial sector, will deliver little in the way of GHG reductions by 2030.

Finally, we observe that it is theoretically possible that CO<sub>2</sub> reductions in the 2025-2030 window could be increased with a corresponding reduction in cost per saved MTCO<sub>2</sub> by accelerating the program's disbursement of funds. But any speeding up of disbursements must be done cautiously because, although most energy efficiency upgrades are relatively "shovel-ready" and can be quickly implemented, the ability of the marketplace, principally HVAC and building trades contractors, to expand capacity in response to increased demand and to assimilate added sales volume has limits. Should the program exceed these limits, the result will be upward pressure on prices without a corresponding increase in output, which will ultimately result in less-than-expected emission reduction at a greater-than-expected cost.

#### **b. Performance Measures and Plan**

Because we are able to model both emission and energy reduction outcomes and costs (see the appendix for year-by-year tables), the proposed plan has a ready-made set of performance metrics with which to determine whether the program is on track to achieve its objectives and to help identify areas in which the Energy Efficiency Grants Board may need to make strategic or tactical adjustments as events unfold.

Two sets of operational metrics will be employed. "Outcome Metrics" will measure the degree to which we are attaining our primary goals for emission reduction, energy reduction, and utility bill savings. "Strategic Metrics" will assess how well we are performing the major functions that are necessary to achieve our desired outcomes. Both Outcome Metrics and Strategic Metrics will be broken down by resource (electricity and natural gas) or by audience sector (residential, low and moderate income residential, commercial, industrial, government, and community groups) as relevant.

- Outcome metrics
  - Energy reductions (MWh, MCF)
    - Aggregate
    - By sector (residential, commercial, industrial)
  - MTCO<sub>2</sub> reductions
    - Aggregate
    - By resource (electricity, natural gas)
    - By sector (residential, commercial, industrial)
  - Utility bill savings
    - Aggregate
    - By resource (electricity, natural gas)
    - By sector (residential, commercial, industrial)

- Strategic metrics
  - Cost per saved MTCO<sub>2</sub>
    - Aggregate
    - By resource
    - By sector
  - Resource performance
    - Electricity
    - Natural gas
  - Sectoral performance
    - Residential
    - Commercial
    - Industrial
  - Customer Engagement
    - General residential
    - Low/Moderate-income residential
    - Commercial
    - Industrial
    - Government
    - Community Groups
  - Partner Engagement
    - Energy efficiency service providers (contractors)

### **c. Authorities, Implementation Timeline, and Milestones**

We have already secured the necessary authorizations from the applicants and from partner organizations. The program will be hosted by the Bel-O-Mar Regional Council<sup>25</sup>, an economic development organization that serves four counties in West Virginia and Ohio, including Ohio and Marshall counties.

Assuming that EPA announces grant awards in October 2024, Wheeling, Moundsville, and Ohio and Marshall Counties will be able to staff and implement the program by Q2 2025, becoming fully operational before Q3 2025. The timeline and major milestones include:

- 11/1/2024: Initiate recruiting and partner outreach begins
- 12/1/2024: Key partners engaged and reporting requirements documented
  - Administrator organization
  - Low and Moderate-Income services provider
  - Education and Workforce Development
  - Contractors and related businesses
  - Establish reporting requirements

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<sup>25</sup> <https://www.belomar.org/>

- 1/1/2025: Staffing complete and space acquired and outfitted
  - Energy Efficiency Grants Board
  - Grants Administrator Office
- 2/15/2025: Business Plan and Services menu finalized
  - Complete business plan, including business objectives, marketing objectives, target audience identification and criteria, and media and messaging strategies.
  - Designation of qualifying energy efficiency upgrades and corresponding subsidy levels
  - Guidelines for assessing and making grants for off-menu commercial, industrial, government and organization applications
  - Begin media acquisition
- 3/15/2025: Program Launch
  - Media and community contact supporting residential and low and moderate income programs
  - Direct outreach to businesses, governments, and community organizations

#### **d. Documentation of GHG Reduction Assumptions**

As alluded to above, the primary sources upon which the emission reduction and econometric model is based are the National Renewable Energy Laboratory (NREL), which provided county-level breakdowns of electricity and natural gas consumption, and the Lawrence Berkeley National Laboratory (LBNL), which tracks and produces reports on both electricity and natural gas energy efficiency programs' rates of energy savings and their levelized cost of energy savings.

In a few instances NREL and LBNL data elements have been replaced with more accurate place-specific data. There are three cases. First is the substitution of Energy Information Administration (EIA) residential, commercial, and industrial electricity prices for the state of West Virginia in place of the more general and less current EGrid sub-region figures that are used by NREL. Similarly, NREL's natural gas pricing data has also been replaced by more recent place-specific data from the American Gas Association. Finally, the NREL electricity sector resource mix data, which are also based on EGrid sub-regions, have been replaced by EIA resource mix figures that are specific to West Virginia, including Ohio and Marshall Counties.

The following screen grabs summarize the model's key assumptions and are self-explanatory.

	Electric	Gas
	Reduction \$/kWh	Reduction \$/Therm
Reduction Cost	\$0.021	\$0.400
Units/MTCO <sub>2</sub>	1958.90	181.82
Red\$/MTCO <sub>2</sub>	\$23.63	\$72.73
Emission Share	78.95%	21.05%
Net Red\$/MTCO <sub>2</sub>	\$33.97	

Consumption						
	Residential Elec	Residential Gas	Comm Elec	ComM Gas	Industrial Elec	Industrial Gas
	MWh	MCF	MWh	MCF	MWh	MCF
Marshall	171,160	655,565	79,105	389,068	280,276	5,977,240
Ohio	207,059	1,116,247	383,918	2,127,910	216,652	257,935
Total	378,219	1,771,812	463,023	2,516,978	496,928	6,235,175
<b>Grand Total</b>	<b>MWh</b>		<b>1,338,170</b>	<b>MCF</b>		<b>10,523,965</b>

Retail Prices					
cents/kwh	\$/mmbtu	cents/kwh	\$/mmbtu	cents	\$/mmbtu
Residential Elec.	Residential Gas	Comm. Elec.	Comm. Gas	Indust. Elec.	Indiust. Gas
<a href="#">13.23</a>	<a href="#">11.66</a>	<a href="#">10.42</a>	<a href="#">9.35</a>	<a href="#">6.74</a>	<a href="#">6.53</a>

Expenditures						
	Res Elec	Res Gas	Com Elec	Com Gas	Ind Elec	Ind Gas
Marshall	\$22,644,468	\$7,934,356	\$8,242,741	\$3,776,022	\$18,890,602	\$40,514,570
Ohio	\$27,393,906	\$13,510,027	\$40,004,256	\$20,652,005	\$14,602,345	\$1,748,320
Total	\$50,038,374	\$21,444,382	\$48,246,997	\$24,428,027	\$33,492,947	\$42,262,889
<b>Grand Total</b>	<b>\$219,913,616</b>					

CO2e						
	Residential Electric	Residential Gas	Commercial Electric	Commercial Gas	Industrial Electric	Industrial Gas
	CO2 Metric Tons	CO2 Metric Tons	CO2 Metric Tons	CO2 Metric Tons	CO2 Metric Tons	CO2 Metric Tons
Marshall	152,083	36,044	70,288	21,391	249,037	328,633
Ohio	183,981	61,372	341,128	116,994	192,505	14,181
Total	336,064	97,416	411,416	138,385	441,542	342,814
<b>Grand Total</b>	<b>1,767,637</b>					

A final assumption that may not be self-explanatory is how the model accounts for performance declines in energy efficiency measures over time. We have built a “degradation table” based on research by Murphy and Deason<sup>26</sup> at LBNL. The degradation model may be viewed in the appendix.

### 3. ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES

#### a. Expected Outputs and Outcomes

In summary, the proposed program will deliver:

- Emissions reductions of 345,709 MTCO2 between 2025 and 2030 and 1,030,702 MTCO2 between 2025 and 2050.
- The cost of these reductions will be \$101.24/MTCO2 for the period 2025-2030 and \$33.96/MTCO2 for the period 2025-2050.

In addition to the program’s environmental benefits, it is expected to deliver significant economic benefits by virtue of the added commerce it will trigger in the local economy.

- Energy savings will result in utility bill relief of \$33,614,233 between 2025 and 2030 and \$142,808,311 in savings between 2025 and 2050.

<sup>26</sup> [https://eta-publications.lbl.gov/sites/default/files/efficiency\\_lifetime\\_technical\\_brief\\_final\\_20200728.pdf](https://eta-publications.lbl.gov/sites/default/files/efficiency_lifetime_technical_brief_final_20200728.pdf)

- Taking into account grant funds, utility bill savings, and supplemental investments by grant recipients, Ohio and Marshall Counties will see \$118,124,611 injected into their economy between 2025 and 2050 and \$200,177,384 between 2025 and 2050.

We have not modeled the impacts on job and income growth however, we know that when a similar program was implemented in the Centralia micropolitan statistical area in Washington state the impact in the five years that followed commencement of grant activity included job growth at twice the rate of job growth nationally and income growth that was 50% greater than the national average.

A full quantitative assessment of the economy in Centralia by the Ohio State University Department of Agricultural, Environmental, and Development Economics found that (1) the energy efficiency grants program was a major driver of economic recovery in Centralia and (2) the economies of counties in the Ohio River Valley and of Centralia are sufficiently similar that the model and its results should be replicable.

Centralia received \$55 million in funding for its grants program and had at the time a population only slightly larger than that of Ohio and Marshall Counties. Additional similarities are that Centralia's economy, like Ohio and Marshall counties', exhibited no job growth between 1996 and 2016, before implementation of the grants program. Centralia's economy was similarly heavily coal-based. For decades a coal mine, which has since closed, was Centralia and Lewis County's largest employer and a coal-fired power plant of the same size and vintage of the Mitchell plant in Marshall County is another major employer, although one of the two operating units of the Centralia plant closed in 2020 and the second is scheduled for retirement in 2025.

Due to the requirement that grant funds be used in five years and, taking into account the need to calibrate disbursements to the local market's ability to assimilate the added funds, the grant amount being requested by Wheeling et. al is 36% less than Centralia received. However, as indicated above, the environmental and economic impacts should be both considerable and very cost-effective.

#### **4. LOW-INCOME AND DISADVANTAGED COMMUNITIES**

Eleven of the twenty-five census tracts in Ohio and Marshall Counties are designated as disadvantaged by the Climate Economic Justice Screening Tool<sup>27</sup>. And, as noted above, the Wheeling MSA, which includes both Ohio and Marshall Counties, was designated the third highest priority nationally among coal and power plant communities by the Interagency Working Group<sup>28</sup>.

Significant participation in the proposed program's environmental and economic benefits by low and moderate-income communities will be assured by the following measures:

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<sup>27</sup> <https://screeningtool.geoplatform.gov/en/#10.42/39.8658/-80.654>

<sup>28</sup> <https://energycommunities.gov/priority-energy-communities/>



- An enhanced menu of residential energy efficiency benefits for low and moderate-income recipients that will reduce and, in some cases, eliminate the need for supplemental investment by the recipients.
- Grant funding may be used for structural improvements that are often needed in conjunction with energy efficiency upgrades in low-income households.
- Participation by advocates for low and moderate income residents on the Energy Efficiency Grants Board.
- Community Groups, including those representing low and moderate income communities, will be eligible for grants to support projects such as community solar.
- Need-based scholarships will be made available for program funded worker and entrepreneur training programs.
- Low and moderate-income communities will be targeted for outreach by the program administrator and staff.

## **5. JOB QUALITY**

The proposed program's primary contribution to economic development will be in the area of job and income growth as was experienced when a similar program was implemented in Centralia, Washington. The program will also provide added economic opportunity by funding job training in relevant skills and entrepreneurship training at the local community college.

## **6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE**

The proposed program's co-applicants are highly experienced in applying for, receiving, and successfully administering federal grants in areas specifically related to those covered by this grant proposal. Those areas include buildings, weatherization, housing, and workforce development and training as reflected in the following examples from project applicants and partners, the City of Wheeling, Bel-O-Mar on behalf of the City of Moundsville and Marshall County, the community action agency, CHANGE, Inc., and West Virginia Northern Community College.

## CITY OF WHEELING

## Project Title

HOME Investment Partnership Program Grant

## Assistance Agreement #

M23DC540204

## Federal Funding Agency

Department of Housing and Urban Development

## Assistance Listing/CFDA #

14.239

## Brief Description of Agreement

The HOME grant is used to fund the First Time Home Buyer (FTHB) Program through the Northern Panhandle HOM Consortium region. The program is administered by the City of Wheeling Economic and Community Development Department (ECD)

## Contact Name from Funding Organization

Julie Gregg

## Contact Email

Julie.n.gregg@hud.gov

## Completion of Performance Statement

ECD staff not only demonstrate consistency in the day-to-day oversight of the program and compliance with the regulations, but they are also involved in the annual and 5-Yr planning for these programs, as well as the required quarterly and annual reporting.

## Performance History

Since the inception of the NP HOME Consortium in 1996, 1100 first time homebuyers have been assisted throughout the consortium areas, using \$9.8 million in HOME funds and leveraging \$61 million in lenders' mortgage money.

## STAFF EXPERTISE &amp; CAPACITY

## Organization Information

Under the HOME Program, the City of Wheeling ECD performs affordability analyses, inspects homes for code compliance, sets up loans, draws funds from the federal IDIS, and monitors homeowner compliance.

## Expertise &amp; Experience

ECD staff have a combined 75+ years of experience in the implementation and administration of the HOME, Community Development Block Grant, and other federal grant and financial programs for the City of Wheeling. These staff not only conduct day-to-day oversight of the program, but also participate in annual and 5-Yr planning and are responsible for quarterly and annual reporting. The staff reports to the City Manager, who has held the office for nearly 20 years.

## Capacity

ECD has the capacity and experience to support and coordinate with the dedicated staff of the proposed Energy Efficiency Grants Program.

**CHANGE, INC.**

Project Title

Low-Income Home Energy Assistance

Assistance Agreement #

Federal Funding Agency

U.S. DHHS – Administration for Children &amp;

Assistance Listing/CFDA #

93.568

Brief Description of Agreement

The purpose of this award is to carry out the Low-Income Home Energy Assistance Program (LIHEAP) as authorized by the Low-Income Home Energy Assistance Act of 1981. The function of this grant is to aid households in need of emergency heat, i.e., the repair or replacement of malfunctioning or non-operable heating units.

Contact Name from Funding Organization

Jennifer Ferrell

Contact Email

Jennifer.L.Ferrell@wv.gov

Completion of Performance Statement

In our grant application CHANGE, Inc. set goals for number of anticipated ERRP completions. These are tracked throughout the annual reporting year and are used as the benchmarks to reach for the program. CHANGE, Inc. anticipates to successfully surpass all goals.

Performance History

The subrecipient will submit the ERRP Monthly Invoice, Monthly Expenditure Report, and Corresponding ERRP Job Summaries, as well as Additional Backup Documentation as required by the pass-through entity by the eighth (8th) calendar day of each month. CHANGE, Inc. has successfully submitted all required information each month during the grant period.

**STAFF EXPERTISE & CAPACITY**

Organization Information

The ERRP Program aids households in need of emergency heat, including the repair or replacement of non-operable heating units. This program also aids households in providing portable air conditioning units.

Expertise &amp; Experience

CHANGE, Inc. will use both crew(s) and contractors to complete ERRP jobs. CHANGE, Inc.'s HVAC supervisor and ERRP Supervisor will perform pre-inspections on a home and then will send out the homeowner information to an area contractor for an estimate of work. Both the HVAC supervisor and ERRP supervisor have years of experience and breadth of knowledge in their respected fields.

Capacity

CHANGE, Inc. anticipates completing 65 ERRP jobs this grant year, according to our reports we are on track to reach this goal.

**CHANGE, INC.****Project Title**

Weatherization Assistance for Low-Income Persons

**Assistance Agreement #****Federal Funding Agency**

U.S. Department of Energy

**Assistance Listing/CFDA #**

81.042

**Brief Description of Agreement**

The purpose of this award is to carry out the Weatherization Assistance Program as authorized by Title IV, Energy Conservation, and Production Act. The purpose of the Weatherization Assistance Program is to reduce energy costs for low-income families, particularly for the elderly, people with disabilities, & children, by improving the energy efficiency of their homes while ensuring their health and safety.

**Contact Name from Funding Organization**

Jennifer Ferrell

**Contact Email**

Jennifer.L.Ferrell@wv.gov

**Completion of Performance Statement**

In our grant application CHANGE, Inc. set goals for number of anticipated WAP completions. These are tracked throughout the annual reporting year & are used as the benchmarks to reach for the program. CHANGE, Inc. anticipates to successfully surpass all

**Performance History**

The subrecipient will submit to the Pass-through entity a Monthly Programmatic Progress Report by the fifth calendar day of each month. The subrecipient will submit the Weatherization Monthly Funding Request and Expense Reports by the eighth (8th) calendar day of each month. CHANGE, Inc. has not missed a reporting requirement for this grant.

**STAFF EXPERTISE & CAPACITY****Organization Information**

The Weatherization Assistance Program assists in reducing energy use for low-income families by improving the energy efficiency of their homes while ensuring their health and safety.

**Expertise & Experience**

CHANGE, Inc. operates its weatherization program currently with one crew consisting of Auditor (Mike Baker), Crew Supervisor (Raymond Manbeck), HVAC Specialist (Ken Baker) three technicians (Rex Coen, William Dawson, Kevin Lucas). HVAC Specialist maintains all necessary certifications and licenses required to install or repair heating systems. Weatherization Program Coordinator NEAT/MHEA, HVAC, Refrigerant, Single Family Dwelling Electrician, Lead, OSHA, and BPI certifications. Staff attend trainings and conferences that pertain to the weatherization assistance program as needed.

**Capacity**

The Weatherization program currently has a waiting list for new jobs, the goal of 36 weatherized homes for the year should be met with ease.

## WEST VIRGINIA NORTHERN COMMUNITY COLLEGE

Project Title

Title III – Part A Strengthening Institutions

Assistance Agreement #

P031A210218

Federal Funding Agency

US Department of Education

Assistance Listing/CFDA #

84.031A

Brief Description of Agreement

Approved Project Objectives Include: Expanding Access to Credentials and Degrees, Improving Student Retention and Completion and Creating a Culture of Data-Informed Decision-Making

Contact Name from Funding Organization

Don Crews

Contact Email

Don.crews@ed.gov

Completion of Performance Statement

WVNCC has submitted complete and timely reports to the US Department of Education and is currently in the process of submitting the Year 2 Final Report.

Performance History

WVNCC continues to make progress toward the goals outlined in the grant agreement, however, any setbacks or lack of progress are opening reported during the reporting periods. We also maintain contact with the Program Director if we have any questions throughout the funding period.

### STAFF EXPERTISE & CAPACITY

Organization Information

West Virginia Northern Community College was founded in 1972 and is a comprehensive community college that provides affordable, quality education and training for all who wish to learn. Northern strengthens our community and empowers individuals to pursue fulfilling lives.

Expertise & Experience

Since its inception in 1972, WVNCC, has responsibly and successfully managed federal, state and private grants and donations, including two Title III awards, federal CARES funding, and a federal Student Support Services grant.

Capacity

The College employs more than 150 individuals including a four-person Business Office with experience in managing large grants. An Institutional Advancement/Foundation Office includes an Executive Director with more than 20 years of fundraising and grant writing, management, and reporting experience. In addition, the Workforce Development Office and its Vice President request, obtain, and manage large state and private grants and donations. We are confident in our ability to participate meaningfully in collaborative grants as well.

## 7. BUDGET

In order to maximize the emission reduction, bill savings, and job creation impact of the proposed program, will disseminate the \$35 million grant over a period of 5 years at a rate of \$7 million per year. If the funds are disseminated more quickly, we risk overwhelming the market with demand for energy efficiency-related goods and services to the point that local suppliers and the available workforce may not be able to keep up. If that were to happen, price increases would dilute the desired increases in efficiency, emission reduction, and job growth and make the program less productive.

### a. Budget Detail

All figures are in 2022 dollars.

Detailed Budget Table							
BUDGET BY YEAR							
COST-TYPE	CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Direct Costs	Personnel						
	Project Administrator @ \$80,000/yr., 5 FTE with salary increase	\$80,000	\$84,000	\$88,200	\$92,610	\$97,241	\$442,051
	3 Project managers @ \$60,000/yr., 15 FTE with salary increase	\$180,000	\$189,000	\$198,450	\$208,373	\$218,791	\$994,614
	TOTAL PERSONNEL	\$260,000	\$273,000	\$286,650	\$300,983	\$316,032	\$1,436,664
	Fringe Benefits						
	Full-time Employees @ 17% of salary	\$44,200	\$46,410	\$48,731	\$51,167	\$53,725	\$244,233
	TOTAL FRINGE BENEFITS	\$44,200	\$46,410	\$48,731	\$51,167	\$53,725	\$244,233
	Travel						
	Mileage for local travel (3000 miles per year at \$0.655/mi)	\$1,950	\$1,950	\$1,950	\$1,950	\$1,950	\$9,750
	TOTAL TRAVEL	\$1,950	\$1,950	\$1,950	\$1,950	\$1,950	\$9,750
	Equipment						
	Office space and facilities	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$60,000
							\$0
	TOTAL EQUIPMENT	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$60,000
	Supplies						
	4 Laptop Computer @ \$2,500 each	\$10,000	\$0	\$0	\$0	\$0	\$10,000
	Server and miscellaneous materials	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$9,000
	1 Printer @ \$1,500	\$1,500	\$0	\$0	\$0	\$0	\$1,500
	TOTAL SUPPLIES	\$16,500	\$1,000	\$1,000	\$1,000	\$1,000	\$20,500
	Contractual						
	Subawarded for program website design and maintenance	\$12,000	\$5,000	\$5,000	\$5,000	\$5,000	\$32,000
	Subaward for workforce development program. Includes training in energy efficiency-related technologies and small business administration	\$250,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,050,000
							\$0
	TOTAL CONTRACTUAL	\$262,000	\$205,000	\$205,000	\$205,000	\$205,000	\$1,082,000
	OTHER						
	Program sub-grants to residential, commercial, industrial, government, and community recipients for energy efficiency upgrades	\$5,879,350	\$6,050,640	\$6,034,669	\$6,017,900	\$6,000,293	\$29,982,852
							\$0
							\$0
	TOTAL OTHER	\$6,403,350	\$6,460,640	\$6,444,669	\$6,427,900	\$6,410,293	\$32,146,852
	TOTAL DIRECT	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$34,999,999
	Indirect Costs						
							\$0
							\$0
	TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0
		\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$34,999,999

### b. Expenditure of Awarded Funds

All funds received will be devoted to four purposes: program administration, workforce development and training, community outreach, and energy efficiency grants to individuals, businesses, governments,

and community groups for the purpose of making energy efficiency and related structural improvements. The latter category, energy efficiency grants, will consume 89% of the funds received and will be disbursed in two ways according to rigorous criteria.

Residential and small business grants will be made according to a menu of qualified energy efficiency upgrades for which there will be specified amounts. The Energy Efficiency Grants Board may, from time to time, adjust the amounts associated with specific upgrades in response to market conditions, but the application of the menu will be consistent for all applicants except for enhanced benefits, which will be available only to low income-qualified applicants.

Grants to large business, industrial, government, and community group applicants, which are often unique and of a nature and scope that cannot be captured in a prescribed menu, will be evaluated by the Energy Efficiency Grants Board according to guidelines that will insure that awards amounts and resulting emission reductions are consistent with the program's overall goals for total energy savings, total emission reduction, and the cost of energy and emission reduction. Applicants will be required to explain in detail the measures they propose to take, provide proof of the expected energy savings, and provide evidence that the price of the proposed measure is consistent with prevailing market prices.

### **c. Reasonableness of Costs**

We are acutely aware that, unless the process is well managed, the injection of funds into a community can produce increases in prices rather than increases in the desired activities. To prevent that from happening, we will take a series of structural measures.

To ensure adequate capacity among contractors and suppliers of energy efficiency-related services and products, funds will be disseminated gradually over a period of five years in order to accommodate the time required for additional workers to be trained and for businesses to expand. The program will also fund workforce development programs to provide sufficient numbers of qualified workers.

To guard against possible price gouging, the program's menu of eligible energy efficiency services and products will also contain guidelines for acceptable prices. Funding for proposed projects may be denied if the total price falls outside the acceptable range. The guidelines will be regularly updated by the Program Administrator's office.

As pointed out earlier, a key strategic goal of the Energy Efficiency Grants Board and the Program Administrator will be to set and maintain award amounts that are sufficient to just tip prospective recipients' return on investment into positive territory thereby inducing them to invest in their own properties and communities.