

CITY OF MILWAUKEE CPRG IMPLEMENTATION GRANT WORK PLAN

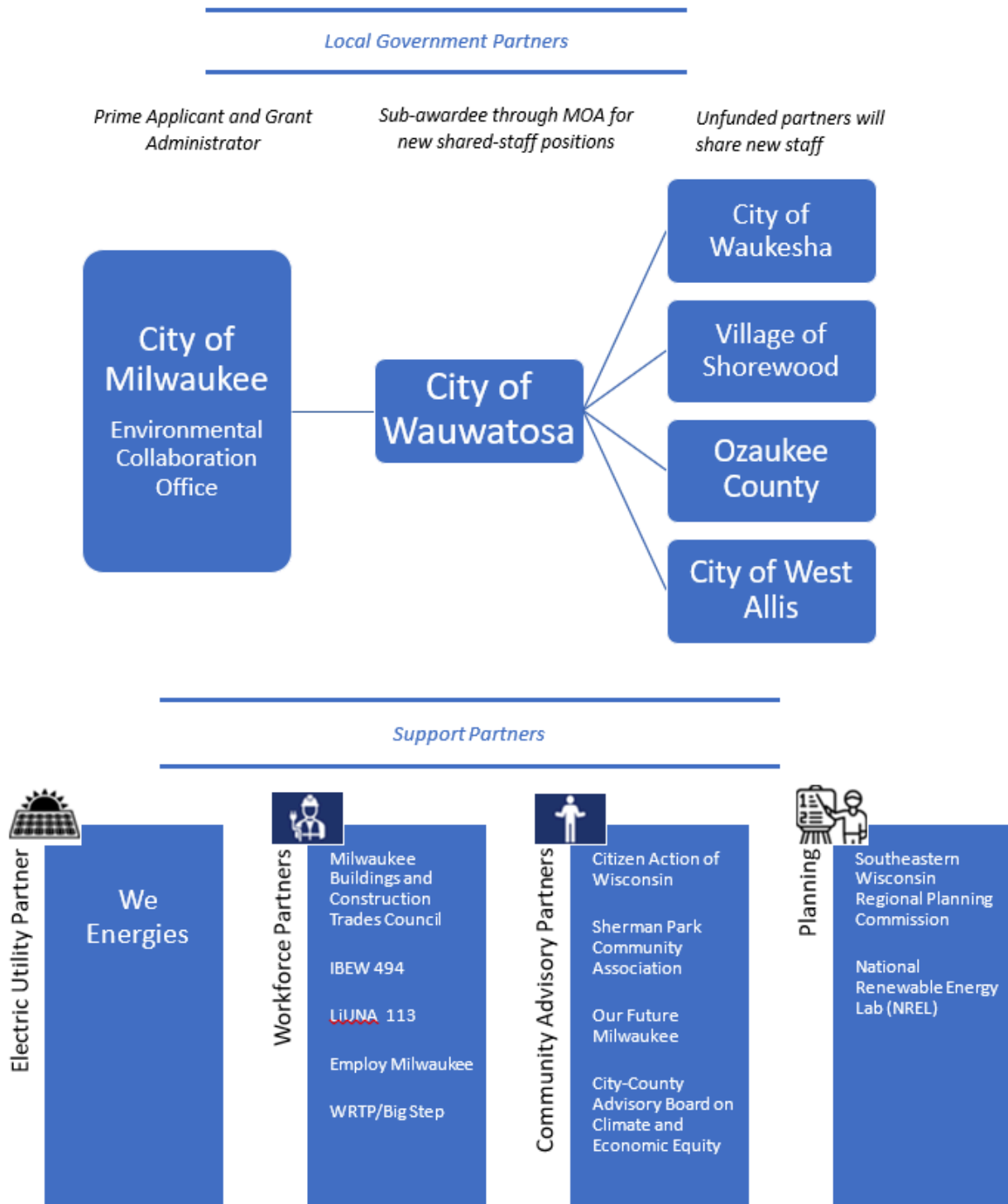


1. Overall Project Summary and Approach

City of Milwaukee Environmental Collaboration Office (ECO) is the lead applicant for a regional coalition application for the Milwaukee-Waukesha, WI Metro Area for a project entitled *Milwaukee Metro Collaboration for Climate Action*. The application implements the projects identified in the region's Preliminary Climate Action (PCAP) developed in partnership with the Southeast Wisconsin Regional Planning Commission (SEWRPC). Funding from CPRG will allow suburban local governments to hire their first Environmental Sustainability Program Managers to manage projects under this proposal and support collaborative climate action across the region. The City of Milwaukee will provide a subgrant to the City of Wauwatosa who will in turn share their new staff with other participating governments including the Ozaukee County, City of Waukesha, the City of West Allis, and Village of Shorewood.

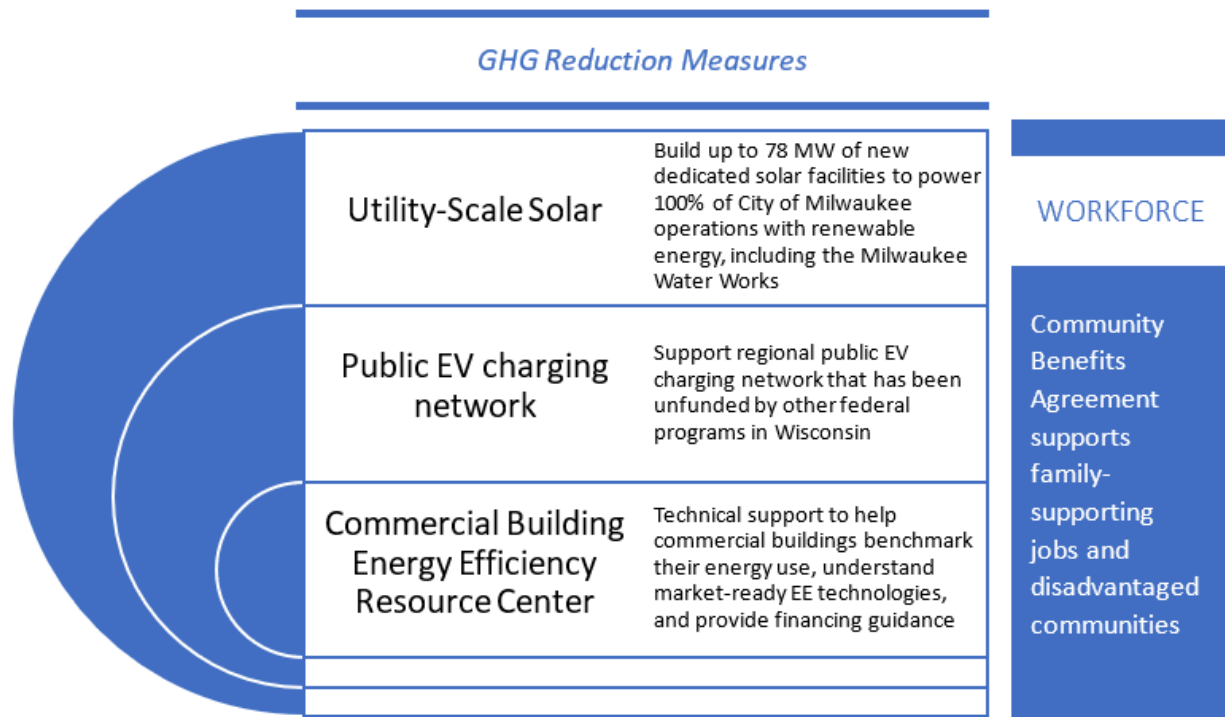
The *Milwaukee Metro Collaboration for Climate Action* proposes three major Greenhouse Gas (GHG) reduction measures that are included in both the PCAP and Milwaukee's Climate and Equity Plan. These include 1) new utility-scale solar fields built specifically to power municipal operations; 2) a regional electric vehicle (EV) charging network; and 3) a Commercial Building Resource Center to support benchmarking, energy efficiency, and renewable energy. Taken together, these measures will achieve significant cumulative GHG reductions by 2030 and deeper reductions by 2050. The installation of measures are supported by a Community Benefits Agreement to support family-supporting wages and hiring from disadvantaged communities. The measures will also provide substantial community benefits particularly in low-income and disadvantaged communities. These projects complement other funding sources to maximize these GHG reductions, reduce local harmful emissions, and provide direct community benefits. With support from several stakeholders, we will ensure the inclusion of innovative policies and programs that support program success and achieve replicability and "scaling up" across multiple jurisdictions. The municipal activities proposed in this application are supported by a broad collaboration of governments from across the region, our electric utility, labor and workforce development organizations, community and environmental justice groups, national advocacy organizations, and planning organizations including SEWRPC and the National Renewable Energy Laboratory (NREL). Together, the City of Milwaukee in partnership with sub award partners of local jurisdictions will implement a regional EPA Climate Pollution Reduction Grant in 3 counties of Metro Milwaukee.

Figure 1: Partnership Structure



a. Description of GHG Reduction Measures

The participating local jurisdictions, municipalities, and communities will achieve Greenhouse Gas (GHG) Reduction through the following measures, all implemented with community engagement and with a community workforce agreement.



1) Utility Scale Solar dedicated to City of Milwaukee operations - CPRG will contribute to the greening of the grid through new **Utility Scale Solar** fields dedicated to power municipal operations. In March, 2023, the City of Milwaukee approved the construction of up to 11 MW of new solar projects (including on a City-owned landfill) in partnership with the City's local electric utility, We Energies. These projects will offset 25% of the electricity use in general city operations, with a goal of achieving 100% clean electricity in municipal operations by 2030 (Common Council file 231608). CPRG funding will allow the region to build up to an additional 78 MW of utility-scale solar to power municipal operations. This will provide 100% clean, renewable power for all City of Milwaukee municipal operations, including the energy-intensive Water Works. The State of Wisconsin is a regulated utility state. The new solar will be built according to either the Renewable Pathway program or the Renewable Energy Rider Programs through We Energies, with both options having been already approved by the Wisconsin Public Service Commission.

Milwaukee's Environmental Collaboration Office has aggressively supported rooftop solar on city facilities and supports residential rooftop solar installations through its Milwaukee Shines Solar Program. The City of Milwaukee worked with the Wisconsin Economic Development Corporation to apply for the Solar For All Program. However, rooftop solar alone is not nearly enough power to help the City of Milwaukee reach its GHG reduction goal. Utility-scale solar in partnership with the regulated-electric utility is required for the City of Milwaukee to make rapid progress for GHG reductions.

We Energies is a subsidiary of the WEC Energy Group and is an investor-owned utility with a service territory that covers southeastern Wisconsin, including the City of Milwaukee and Milwaukee County. We Energies is Milwaukee's sole public electric utility provider. WEC Energy Group's *Corporate Responsibility Report* outlines the company's overall climate strategy and progress within its portfolio. We Energies' *Pathway to a Cleaner Energy Future* document states the utility's commitment of a 60% reduction in carbon emissions by 2025 and an 80% reduction by the end of 2030 from 2005 levels..

In Wisconsin, the electric grid is largely under the control and operation of electric utility companies. These companies are involved in the generation, transmission, and distribution of electricity from source to consumer. Wisconsin's investor-owned utilities and energy market are regulated at the state level through a combination of state laws and administrative oversight by the Public Service Commission of Wisconsin (PSC). Local governments do not play a direct role in regulating electric utilities. In addition, local governments and residents have fewer options than communities in other states to purchase renewable energy. In response to these limitations, the City of Milwaukee and Milwaukee County have become active advocates for climate policy at the PSC through the Wisconsin Local Government Climate Coalition (WLGCC) and direct intervention on PSC dockets. WLGCC and its members are authorized to file comments in dockets and cases before the PSC. These actions create a pathway to design and implement the policy and regulatory changes necessary to enable a transition to a clean electric grid. **Through the City's effective advocacy, it is now able to collaborate with its utility on the construction of new, dedicated solar energy facilities that would not have been built but for the City's investment.**

Accelerating the switch to clean, renewable sources of energy such as solar and wind can reduce emissions from the electric power grid sector. By substituting green power for conventional electricity, which is produced primarily by combusting fossil fuels and is responsible for nearly 33 percent of total U.S. energy-related GHG emissions. Outputs from the installation of 78 MW of new, utility-scale solar panels will reduce GHG emissions significantly based on the Re-Opt model calculations and analysis.

Fossil fuel combustion for electricity generation accounts for 67 percent of the nation's sulfur oxides (SOx) emissions and 23 percent of the nation's emissions of nitrogen oxides (NOx), both of which can lead to smog and acid rain.¹ In summary, this strategy is anticipated to result in the following benefits and metrics:

- Improving air quality and associated respiratory and cardiovascular health, in particular if this strategy led to the retirement of coal-fired power plants
- Job growth and creation in the solar energy field
- Number of renewable energy installations.
- Tons of pollution (GHGs and co-pollutants) reduced over the lifetime of the measure.
- Tons of pollution (GHGs and co-pollutants) are reduced annually.

EV Charging Network Infrastructure - The Milwaukee PCAP and Climate and Equity Plan calls for the electrification of the transportation sector. In 2023, the City of Milwaukee passed an ordinance committing the City to transition its municipal fleets to EVs, hybrids, and other low-emissions vehicles. In addition, ECO is working with fleet managers to implement this ordinance and utilize applicable tax credits according to City ordinance 310-18. The City also developed a *Preliminary EV Readiness Plan* available at [Milwaukee.gov/EV](https://www.milwaukee.gov/EV). Through this project, ECO will work with experts, partners, members of underserved communities, and other stakeholders to refine and conduct additional public engagement to develop a final Public EV Charging Network Plan based on equity, access, and efficiency. In addition, the City will seek funding to install EV charging equipment at City-owned parking lots through a public-private partnership. Several libraries were made EV charger-ready during repaving and could serve

as pilots in determining the different types of charging equipment or vendors that could be used for citywide use. The City will also collaborate with the Wisconsin Department of Transportation's Wisconsin Electrification Initiative and EV Infrastructure Deployment Plan to help locate fast EV charging stations in Milwaukee.

Wisconsin recently passed a new law to make EV charging station policy compliant with State law. However, it also places limits on local government ownership of EV infrastructure. Therefore, the City will issue an RFP consistent with its Preliminary EV Readiness Plan to identify a private-sector partner to build, own, install, and maintain the charging network. At least 40% of the new charging locations will be located in federally identified disadvantaged areas in the Milwaukee Metro.

This proposal complements our efforts to raise public awareness of the benefits of clean energy technologies, improve air quality, and reduce greenhouse gas (GHG) emissions by transitioning fleets, including transit vehicles, to electric vehicles (EVs). This strategy includes efforts to develop a regional charging network with stations equitably distributed throughout the region, most likely through public-private partnerships to design, build, and operate the network. In addition, these activities would help establish regionwide model EV infrastructure citing policies. According to Clean Jobs Midwest, the Milwaukee Metropolitan area has a total of 18,574 clean energy jobs and Wisconsin has 69,343. A prime example is the opportunity for more skilled electricians to help install and build out Milwaukee's EV charging network.

In January 2024, federal officials came to Milwaukee to announce that Wisconsin Regional Training Partnership (WRTP/Big Step) received a \$1.6 million grant from the to develop an EV Skilled Trades Employment Program. Milwaukee has the training program but now needs the funding for the EV infrastructure itself so that disadvantaged workers coming through the program have a real opportunity to work once they've completed their training.

Outputs: The project will install 30 Level 2 EV Charging Stations

Outcomes: The anticipated outcome is the creation of more resilient and sustainable communities with enhanced charging infrastructure. Usage of the stations by between 50-75 regular annual users means that 1,800 vehicles will be served by the 30 new charging stations. This means more confidence in the charging network and the adoption of more EVs that reduce GHG even further. By incorporating Utility-Scale Solar in Measure 3 into the project, the proposal aims to reduce dependency on conventional energy grids, contributing to energy independence and fostering a local environment resilient to the impacts of climate change.

Metrics and Possible Outcomes:

- Number of EV chargers within the Milwaukee MSA.
- Tons of pollution (GHGs and co-pollutants) reduced over the lifetime of the measure.
- Tons of pollution (GHGs and co-pollutants) are reduced annually.
- Number of EV charging stations located in census block groups of low-income households and persons of color.

3) Commercial Building Energy Efficiency Resource Center to support **Building Energy Efficiency and Decarbonization** for commercial buildings through a virtual Commercial Buildings Resource Center and the investment of \$2.8M to help leverage efficiency measures. This virtual Resource Center will support implementation of Milwaukee's proposed commercial building benchmarking policy, which is intended to serve as the foundation for future building policies including a possible Built Performance Standard. At the urging of the White House Council on Environmental Quality, Mayor Cavalier Johnson and the City of Milwaukee are part of the national Buildings Performance Standards (BPS) Coalition. A commercial

building benchmarking policy would seek to improve energy efficiency in commercial buildings by requiring covered buildings owners to track and report energy building use. These policies also make building performance more visible in the marketplace, empowering consumers to more easily understand how buildings are performing and incentivize building efficiency, resulting in market transformation. Staff at the center will track the participation of building owners as required by the policy and provide building owners with assistance in tracking their energy use through EPA's Portfolio Manager tool.

The Center will support voluntary programs and/or commercial building energy policy and direct funding for municipal energy efficiency projects throughout the Milwaukee Metropolitan Area. In addition to benchmarking support, it will educate building owners on market-ready GHG reduction technologies like heat-pumps, LED lighting, and roof-top solar. It will also inform customers about financing tools like Milwaukee's Property Assessed Clean Energy (PACE financing), new EPA Green Bank lending by regional and national CDFIs, and federal tax credits, including elective-pay options for non-profit institutions. The Resource Center will be virtual and federal funds will not be used for the purchase of a building.

Commercial buildings comprise 18% of the United States' total energy consumption. In 2018 they accounted for 23% of total greenhouse gas emissions in the City of Milwaukee. Existing commercial buildings and multi-family properties with four or more units should focus on reducing energy use while improving indoor air quality. Since 2015, Milwaukee has been a leader in advocating for energy efficiency among commercial buildings. The City's Better Buildings Challenge, modeled after the US DOE's national challenge, enrolled over 133 commercial buildings in a voluntary benchmarking program.

New Buildings and Energy Standards

Commercial buildings must adhere to established building codes, which set regulations for design, construction, alteration, and maintenance. Building codes include energy codes, which specify regulations for the energy efficiency of a building and its systems. The State of Wisconsin Department of Safety and Professional Services establishes the building code for the entire State. Per Wisconsin law, municipalities are not allowed to set higher energy efficiency requirements in local building codes, something that other municipalities across the U.S. are allowed to do. The Wisconsin building code have not kept pace with national or international standards. Milwaukee's proposed benchmarking policy is designed to help the City take action within the confines of state law.

Existing Buildings

Commercial building benchmarking policies are a market-based strategy built on the theory that a market works best when performance is transparent and easily comparable. Chicago, Columbus, Indianapolis, and Des Moines are among other Midwestern cities that have implemented building benchmarking policies. Benchmarking ordinances are a common first step to more impactful strategies. Cities that have **implemented benchmarking policies report a 2.4% average annual energy saving improvement for the next three years, or a total of 7.2% savings. Based on the City of Milwaukee's 2018 Greenhouse Gas Emissions Inventory, this could mean an approximate decrease of 54,536 tons of greenhouse gas emissions annually.**

The City of Milwaukee has long promoted **Better Buildings Challenge** through the U.S. Department of Energy since 2012, including a showcase project with the Milwaukee Central Library. In 2013, the city created the **PACE Financing Program** as an implementation model for other cities to replicate. In 2016, the city launched the Better Buildings Challenge which leveraged funding from the Department of Energy to bring together the resources a building needs to develop an energy efficiency project.

During the challenge period, the City completed 133 free energy assessments, engaged 200 buildings to reduce energy use by 20%, and saved 16.52 million kilowatt-hours and 408,838 therms annually. The

program included benchmarking in the ENERGY STAR Portfolio Manager®, free energy assessments to buildings, and consultation on next steps for building owners.

Equity

New building developments and existing building upgrades create a variety of new jobs in the fields of construction, HVAC (heating, ventilation and air conditioning), plumbing, electrical, and engineering. Transforming the City of Milwaukee into a sustainable city with high-performance buildings will require a larger workforce than currently exists. The strategies within this idea will support the creation of energy efficiency jobs that advance social equity through inclusive training programs and resources. Moreover, improving the energy efficiency of multi-family apartment buildings with four or more units can provide more comfortable, healthier living environments that lower energy bills for tenants. An equitable workforce plan that engages training providers, employers, and government agencies is critical to this overall strategy.

ECO and the City of Milwaukee have set-aside \$250,000 for Workforce Development. Milwaukee's proposal is supported by the Milwaukee County Buildings and Construction Trades Council, WRTD/Big Step, Employ Milwaukee, and the City's Office of Equity and Inclusion. Working together, these agencies will design a program to conduct intensive, targeted outreach to disadvantaged community adults and youth. Job readiness training, construction certificates and trade apprenticeships will all be part of the Workforce Development efforts.

Metrics and Possible Outcomes:

- kWh of electricity and thermal units of natural gas saved per year.
- Tons of pollution (GHGs and co-pollutants) are reduced over the lifetime of the measure.
- Tons of pollution (GHGs and co-pollutants) are reduced annually.
- Number of renewable energy installations. Number of energy audits being conducted in buildings subject to the ordinance.
- Compliance rates among buildings subject to the ordinance.
- Building specific metrics including energy and water use reductions and cost savings.
- Contractors' use of benchmarking information to expand their business offerings.

b. Demonstration of Funding Need

Since its creation in 2006, the City of Milwaukee's Environmental Collaboration Office (and its predecessor, the Office of Environmental Sustainability) has been a leader in local climate action. However, the vast majority of local progress has been made with support of federal grants, starting with a \$5.8 million Energy Efficiency and Conservation Block Grant in 2009 as part of the Obama Administration's American Recovery and Reinvestment Act. With that funding, the City has been able to build and sustain programs. The passage of the Milwaukee's Climate and Equity Plan in 2023 and regional PCAP were designed to explicitly position Milwaukee as a partner with the federal government to receive federal funding and deploy programs that perfectly align with the shared federal and local goals, including Justice 40 equity goals. The City sees an existential crisis on climate change and is publicly taking bold action. We are seeking an infusion of \$9,997,330 to implement strategic measures that will decrease GHG emissions. Although the need is much higher than that in our community, we are seeking this modest Tier E application because receiving an award is so critical to our efforts.

The City and Region have confronted the public health and economic challenges of COVID-19 and have succeeded in stabilizing staffing and employment in the public sector and the provision of public services we provide. A large portion of ARPA and IIJA dollars to our region have been spent on personnel, housing and public health interventions and core infrastructure. However, the State of Wisconsin has

imposed significant fiscal constraints on the City of Milwaukee, and the City is heavily reliant on grants for climate action work. This CPRG award is a key element of the capital needed to achieve the region's decarbonization goals. CPRG funding provides suburban local governments the ability to hire environmental sustainability staff for the first time to focus on GHG reduction work. With new staff, these communities will be able to prove the value of embedded environmental sustainability staff for improving their communities' quality of life.

Currently, the Milwaukee region is far behind other communities nationally on electric vehicle charging infrastructure. Of the 50 largest metros, Milwaukee was ranked in the bottom 10 for availability of electric vehicle charging. A readily available public charging network is an important factor in increasing EV adoption rates. According to the U.S. Department of Energy's Alternative Fuels Data Center, Wisconsin currently has 368 Public Level 2 and fast charging stations with a total of 832 charging ports. 28 of the public charging stations are in Milwaukee County, and of those 21 are in the City of Milwaukee.

An analysis using Alternative Fuels Data Center Tools performed by Slipstream found that the City would need 818 Workplace Level-2 Chargers, 500 Level-2 Public Chargers, and 87 Public Level-3 Fast Charging Plugs installed to support 50% of light-duty vehicle sales being EVs by 2030. Charging calculations could change if there is wider adoption of home EV chargers. Although the City is aware of the US DOT CFI funding for electric vehicle charging infrastructure. The City of Milwaukee completed a Preliminary EV Readiness Plan available at [Milwaukee.gov/ev](https://www.milwaukee.gov/ev). Funding for utility scale-solar for municipal purposes is not available from other funding sources. Most other federal grants support roof-top solar or community solar for residents. Building new, utility-scale solar projects for subscription by local governments will require hundreds of thousands of dollars annually which will require federal assistance. Finally, the City did not request funding for housing programs because it is fully engaged in using other EPA grant programs, such as a recent Environmental Justice grant and an upcoming EPA Community Change grant application, to support community-based housing interventions.

c. Transformative Impact

Communities throughout the Milwaukee metro area and around Wisconsin and Country have taken note of Milwaukee's leadership on climate action². Mayors in other communities approached Milwaukee about how to build sustainability offices to model the work going on in the City of Milwaukee³. Because of the regional focus of the CPRG program, Milwaukee and suburban communities are coming together for the first time to address both climate and equity. Milwaukee's *Climate and Equity Plan* is the basis of the regional PCAP and suburban leaders were willing to come together on a joint application to accelerate the work of GHG reduction and environmental sustainability. Moreover, ECO's work with We Energies to create new options for municipalities, corporations, and large institutions to subscribe to new renewable energy systems has already been used by others. Molson-Coors and Leinenkugel breweries announced it will use the Renewable Pathways program to source 100% of their electricity from renewable sources. More rapidly building the network of EV Charging facilities will encourage more local car dealerships to stock EV vehicles for sale, as Milwaukee is currently an underserved market for these types of vehicles.

These measures were chosen because of their collective impact on GHG emission reduction, but also because they are complementary investments that "stack" in the municipalities and particularly disadvantaged communities. We selected utility-scale solar array installation for municipalities in part because our work in negotiating with the electric utility could help open the conversation for more

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community solar installations as part of a separate *Solar for All* application. Additionally, a dedicated funding source for utility-scale solar is needed to justify new workforce developments in the solar and EV charging industry.

Through this plan, the City of Milwaukee will have a Memorandum of Agreement with the City of Wauwatosa. Wauwatosa will hire two new Program Managers who will be shared with at least four other communities through a hosting arrangement, and they will meet regularly with City staff. In this way, the region will work with coordination and common purpose on the measures contained in this grant and the broader field of climate action. The new Environmental Sustainability Program Managers throughout the region, backed by the virtual Commercial Building Resource Center, will utilize financing tools like the EPA Green Bank, PACE, and tax credits (including elective pay for local governments and nonprofits) to spur a large-scale uptake of retrofits in public and private buildings. Southeastern Wisconsin CPRG investments, goals and activities account for resources for green workforce development with a focus on underserved communities, targeted outreach to BIPOC owned businesses, businesses that provide local job opportunities and career opportunities, and reskilling services to transform local residents economic opportunities.

2. Impact of GHG Reduction Measures

a. and b. Overall Magnitude of GHG Reductions from 2025 through 2030 and 2025-2050

GHG Reduction Measure	Data Source	Annual Reduction Tons (CO ₂ e)	2025-2030 Reduction (CO ₂ e)	2025-2050 Reduction (CO ₂ e)	Cost Effectiveness GHG Reduction \$ Per Ton
Utility-Scale Solar	ReOPT	24,745	123,725	618,625	\$4.62/Ton
Public EV Charging Infrastructure	AFLEET	150.4	752	3,760	\$664.89/Ton
Commercial Building EE & Resource Center	ComStock	71.59	357.95	1,789.5	\$1,261.57/Ton
Total	----- -	24,966	124,834	624,174	\$160.20/Ton

Measure 1: Install **30, Level 2 EV Charging Stations** at a cost of \$2,000,000 yielding a 25 year GHG Reduction of **3,760 Tons**. The effective cost of 1 ton of GHG Reduction is **\$664.89**.

Measure 2: Commercial/Industrial/Multifamily Building Energy Efficiency: Assessment and Implementation Measures as indicated by Building Measures Optimization Tools with total direct investment of \$2,250,000 yielding a 25-year GHG Reduction of 1,789.75 Metric Tons. The effective cost of 1 ton of GHG Reduction is \$ 1,257.15.

Measure 3: Utility-Scale Solar Array Installations: Work with We Energies to install 78 MW of utility-scale solar panels at a cost of \$2,857,726 yielding a 25 year GHG Reduction of **618,000 Metric Tonnes**. The effective cost of 1 ton of GHG Reduction is \$4.64.

b. Documentation of GHG Reduction Assumptions

Calculations from the PCAP and other work are described here in summary and full calculations in the Technical Appendix.

EVs improve local air quality by eliminating tailpipe emissions and replace finite fossil fuel power with the infinite power of the Sun . When the electricity used to charge an EV is derived from a non-fossil fuel source, eliminating greenhouse gas emissions it mitigates future climate change impacts. Our CPRG proposes investment in increasing the distribution and availability of EV charging stations. This widens the scope and reach of the charging network and allows for more off-peak charging, thereby improving energy grid efficiency. Calculations in this proposal draw from well established tools developed by the EPA, Department of Energy and Federally Funded Research and Development Centers.

The City of Milwaukee and Southeastern Wisconsin Regional Planning Commission studied the impact of additional EV charging stations on the continued adoption of electric vehicles. Our Priority Climate Action Plan highlights the direct correlation in current research between widely available fast-charging stations and EV uptake in the marketplace. This is well-documented in a State of California Department of Energy 2022 study of EV charging in San Bernardino County where rapid deployment of public charging stations led to a 20% increase in EV vehicles registered in the county 2 years later. Direct incentive programs also spur adoption of electric vehicles and there are federal tax credits available for EVs. The scenarios that follow for EV Charging Station Implementation are depicted in terms of the magnitude of GHG reductions from 2025 to 2030 and reductions from 2025 to 2025. A final set of calculations include the cost effectiveness of the scenarios given prevailing market conditions.

3. Environmental Results – Outputs, Outcomes, and Performance Measures

a. Expected Outputs and Outcomes

Based on the CPRG Resources and Activities, we anticipate the following project outputs:

Measure 1 EV Charging Stations - Based on GHG assumptions, calculations and models, the following:

Outputs: Investment of \$2M in EV Charging Stations/Industry; Procurement Process for 1 General Contractor; 30 Designs for Installations; 2 Community Engagement Meetings for 25 stakeholders on Sites/Workforce/EV Charging; 6 out of 12 Total FTE Jobs for Disadvantaged Community Members; 30 Environmental Assessments; Site Approvals for 30 EV Charging Stations; 30 Installed, Commissioned Charging Stations; 60 Monthly Financial, Program and GHG Data Reports to EPA; 5 Annual Reports and Audits to EPA

Short-Term Outcomes: Benefits of EV Charging Stations in underserved areas; Jobs and Careers for Disadvantaged and Other Workers; Better EV Charging Options for Fast Charge; Workforce and Industry

Sector Growth; Benefits to Disadvantaged Communities; Increased Consumer Confidence in EV Fuel System; Greater Uptake in EV Auto Purchases/Leasing

Long-Term Outcomes: Metropolitan-wide EV Charging and Service Network, 90% uptake of EV automobiles and mobility solutions, Net Neutral Light-Duty Vehicle Transportation

Measure 2 Building Energy Efficiency and 2 Sustainability Community Energy Centers

Outputs: 10 municipalities and jurisdictions activated in Regional Clusters; Building Standards revisions introduced to 25 municipality managers and Mayors; Investment of \$2M in Building Energy Efficiency Retrofit upgrades; Engage 100 Private Businesses in BEE meetings; Assessment and Implementation Measures at 40 commercial buildings; Leverage \$1M in energy tax credits, rebates and incentives; Improve comfort and functioning of 40 commercial buildings; Community Benefits Agreement and 6 of 12 new FTE jobs created for Disadvantaged Workers; Energy Use reduced by 15-40% in 40 commercial buildings

Short-Term Outcomes - Reduced Energy Demands, GHG emissions reductions; Reduced Operational Costs and Budgets; Increased Resiliency of buildings; Improved Ventilation and Air Quality; Fewer Injuries; Reduced Maintenance and Operations Costs

Long-Term Outcomes - Healthier Building Occupants; Fewer Absences; Higher Levels of Employee Retention; Enhanced Green Economy Value Chain

Measure 3: Utility-Scale Solar Arrays

Outputs: Purchase of thousands of solar panels; 122,640,000 kWh of Renewable Energy provided to grid annually; Reclamation of 12-25 acres of land; 25 new job opportunities and Utility Community Benefits Agreement with Trades Council; Investment of \$2.6M in solar installations to leverage millions more in utility investment.

Short-Term Outcomes: Reductions in Power Outages, Zero GHG Emissions of Operations, No Water Requirements, Improved Air and Water Quality; Benefits of Solar Arrays in underserved areas; Workforce Development Enhanced; Increased Consumer Confidence in Solar Panels;

Long-Term Outcomes: Progress towards Net Neutrality; Reaching Goal for 100MW of deployment in City of Milwaukee; Improved Air and Water Quality; Enhanced Solar Power Value Chain - production to installation to service; Growing the Renewables Economy

b. Performance Measures and Plan

Measure 1 EV Charging Stations:

<u>Measure of Performance</u>	<u>Data</u>
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1) Number of Persons Attending Community Engagement Meetings	Sign-In Sheets, Minute
2) Procurement of Contractors, Equipment	Publications, Interviews, RFI
3) Workforce Recruited/Disadvantaged Component	Number of New Hires/Disadv. Job Creation

4) Site Approvals Granted	Site Plan/Environmental/Permits
5) EV Station Installed	Equipment Purchases, Receipts
6) EV Customer Uptake/Usage/GHG Reduction	Charging Station Data
7) Impact on Regulations and EV Scaling	Data on new EV Chargers, EV Purchases
8) Consumer and Public Sector Understanding of Renewable Energy	Community Surveys, Dashboard

Measure 2 Building Energy Efficiency and 2 Sustainability Community Energy Centers

Measure of Performance Data

1) Number of Persons Attending Community Engagement Meetings	Sign-In Sheets, Minutes
2) Municipal and Private Sector Outreach	Meeting Logs, Mileage Reports
3) Good Jobs and DBRA Wages Paid	CBA, Reporting
4) Buildings Assessed - Installations	Project Reports, Close-Outs, Receipts
5) Improved Building Performance	Utility Statements, Surveys
6) Impact on Regulations and EE Scaling	Data on new EE Installations, \$\$
7) Consumer and Public Sector Understanding of Energy Efficiency Measures and Renewables	Community Surveys, Dashboard

Measure 3: Utility-Scale Solar Arrays

Measure of Performance Data

1) Number of Persons Attending Community Engagement Meetings	Sign-In Sheets, Minute
2) We Energies and Community Site Agreements	Executed Approvals and Contracts
3) Good Jobs and DBRA Wages Paid	CBA, Reporting
4) Array Approvals and Installations	Project Reports, Close-Outs, Receipts
5) Renewable Energy Generation and GHG Red.	Solar Array Data, Engineering Reports
6) Impact on Regulations and EV Scaling	Data on new EV Chargers, EV Purchases
7) Consumer and Public Sector Understanding of Renewable Energy	Community Surveys, Dashboard

c. Authorities, Implementation Timeline, and Milestones

Identifies the parties and their roles and responsibilities for implementing each GHG reduction measure;

The City of Milwaukee is the Applicant with staff and support from the Environmental Collaboration Office (ECO) who manage the coalition of partner communities in concert with the Southeast Wisconsin Regional Planning Commission (SEWRPC). Both these organizations are chartered and authorized by the City of Milwaukee and State of Wisconsin to promote the common good and reduction of carbon emissions and GHG is a critical common good identified by both organizations and their governmental sponsors. The CPRG project implementation is the responsibility of the City of Milwaukee.

The City of Milwaukee is authorized to pursue the listed projects contained in this application. The Milwaukee Common Council and Mayor Johnson adopted the City's Climate and Equity Plan. Common Council file number 221223 is an *ordinance adopting the Climate and Equity Plan and amending the Citywide Policy Plan as part of Milwaukee's Overall Comprehensive Plan, and directing its implementation*. The ordinance resolves that "the Department of Administration - Environmental Collaboration Office, Department of Public Works, Department of City Development and relevant City departments are directed to work both internally and in collaboration with Milwaukee County, state agencies, public utilities and relevant community organizations and businesses to implement the goals, policies and programs contained in the Climate and Equity Plan. It further resolved that the Department of Administration - Environmental Collaboration Office, Department of Public Works, Department of City Development and relevant City departments are directed to work both internally and in collaboration with Milwaukee County, state agencies, public utilities and relevant community organizations and businesses to implement the goals, policies and programs contained in the Climate and Equity Plan and is further resolved that the Department of Administration and City departments will actively pursue federal and state funding opportunities to implement the Climate and Equity Plan." Additionally, City Council file 231608, authorizes ECO to enter into a large-scale solar agreement with our utility, We Energies, to allow the City to meet its 25% renewable energy goal by 2025. It further directs ECO to work with We Energies to find additional sites to achieve 100% renewable energy by 2030, with new agreements subject to additional Council approval.

In March, 2024, Governor Evers passed a bi-partisan law to allow for EV charging infrastructure throughout the state. 2023 Wisconsin Acts 121 and 122, respectively enable the Wisconsin Department of Transportation (WisDOT) to receive and administer more than \$78 million in federal funds under President Joe Biden's Bipartisan Infrastructure Law (BIL) to bolster the state's electric vehicle (EV) infrastructure. The law clarifies that the installation of electric vehicle charging infrastructure is legal in Wisconsin. The City will execute this project within the limits on local governments described in the law.

The Building Resource Center provides programmatic assistance to building owners that kind of support is allowable under Wisconsin law.

Executive and legislative authority provided to the ECO offices by the Mayor and Common Council is sufficient to carry out the proposed award activities in the priority areas listed above.

CITY OF MILWAUKEE SCHEDULE OF IMPLEMENTATION

Activity	Task	Partner	△ = Milestone	Pre-grant	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
General Administration									
	MOA with City of Wauwatosa signed by July 1, pre-award	ECO/ Wauwatosa	MOA executed	△					
	Shared staffing model	Wauwatosa and non-funded communities	Agreements with non-funded municipalities finalized to share staff						
	Develop Project Management Plan	ECO	Plan finalized						
	Recruit & hire new positions for suburban communities	Wauwatosa							
	Reporting	ECO	Submit Quarterly Report Submit Final Report						
	Workforce Plan	Workforce partners	Workforce Plan completed						
	Recruitment fairs for workers on GHG measures	Workforce partners							
	Coordination among communities on all sustainability activities	ECO/ Wauwatosa/ other gov'ts							
Utility-Scale Solar									
	Work SEWRPC, City Planning division, and We Energies to explore possible solar locations with community outreach	ECO/ Wauwatosa	Sites selected						
	Negotiate agreements with We Energies	ECO/ Wauwatosa	Agreement signed						
	Construction	We Energies, and contractors	Construction work begins						
	System Commissioning	We Energies	EPA Administrator visits Milwaukee to cut ribbon						
	Grant payments on commissioned systems	ECO							
Public EV Charging Plan & Installation									
	Conduct community engagement to select sites, including public dashboard using Social Pinpoint (city of Milwaukee)	ECO	Community Meetings held						
	Suburban community engagement	Wauwatosa							
	Draft & issue RFP for EV vendor to design, build, finance, install, and maintain EV charging	ECO							
	Negotiate final contract and select vendor	ECO/ Wauwatosa	Vendor contract signed						
	Permit, procure, and install charging infrastructure	Selected vendor under supervision from ECO and Wauwatosa staff	Stations 1-10 installed Stations 11-20 installed Stations 21-30 installed						
Commercial Building Resource Center									
	Procure service provider [City will begin procurement of this service prior to grant award]								
	Promote CBRC Resources to commercial buildings								
	Coordinate Greenbank financing, PACE, tax credits, other								
	Serve commercial buildings		Report on # buildings served						

3. Low-Income and Disadvantaged Communities

a. Community Benefits

The City-County Task Force on Climate and Economic Equity was formed in 2019 to create a plan to tackle climate change while also reducing racial and economic inequity in the City and County of Milwaukee. For example, making buildings substantially more energy efficient will require more energy efficiency technicians, which are jobs that pay a decent wage and cannot be outsourced. Task Force members and the work groups they led examined best standard policies to reduce greenhouse gas emissions, and, after over a year of research and discussion, modified those recommendations to make sense for Milwaukee in reducing inequity. **The Task Force agreed that addressing historic racial disparities is a co-equal goal of the plan and it is critical to achieving the recommended climate goals.** Black and Latino households often spend a disproportionately high percentage of their income on energy bills, a term known as energy burden. Ensuring access to energy efficiency programs can provide needed relief to a household's budget. If electric vehicle (EV) charging infrastructure is not equitably distributed so that everyone can access it, the City will not achieve its target EV adoption rates. The Task Force and Work Group members recognize that while climate change affects us all, it does not do so equally. Underserved communities bear the brunt of most impacts of climate change, like urban heat islands and flooding. The Task Force worked to include communities of color on working groups and public conversations about the plan. The Task Force, and by extension, this *Climate and Equity Plan*, does not aim to solve all inequities in the City of Milwaukee; Instead, it aims to tackle climate change in a way that reduces inequity and does not worsen existing inequities. Put more simply, this is a “just transition” of our energy and transportation systems with goals that align with EPA, Administration and federal efforts to tackle the climate crisis.

Target Disadvantaged Communities:

The City of Milwaukee contains large areas of disadvantaged areas as defined by Climate and Economic Justice Screening Tool (CEJST), and Wauwatosa also contains disadvantaged areas. This project will create economic opportunity in disadvantaged and overburdened census tracts in the City of Milwaukee and the City of Wauwatosa. The communities are characterized by limited income and economic opportunity with a variety of health, social, and educational challenges. Our CPRG collaboration will help transform disadvantaged, overburdened communities by reducing GHG emissions and through the primary and secondary health/social benefits those reductions create. At least 40% of the EV charging stations under this proposal will be sited in disadvantaged communities. The solar arrays, wherever they are sited in the region, will reduce emissions from current coal-fired plants that impact the entire community. And the commercial building resource center will also serve disadvantaged areas.

As a result of investments in Utility-Scale Solar Arrays, Building Energy Efficiency Retrofits and EV infrastructure, the following benefits will be realized:

- Reductions in new asthma cases and better overall air quality;
- Reductions in hospital admissions and emergency department visits;
- Decreased lost workdays due to illness
- Long term reduction in chronic heart and pulmonary diseases
- Decreases in child and senior mortality rates
- Transportation cost savings for individuals
- Individuals can take advantage of career opportunities in electrification and GHG reduction jobs
- Local and regional economic benefits generated by local benefits and secondary effects of users from outside of the community using charging systems and nearby businesses.

Community Benefits Agreement

The biggest benefit to disadvantaged communities under this proposal is job creation targeted to residents of those communities. Milwaukee will implement a Community Benefits Agreement (CBA) on this project to conform to the US Department of Labor's Good Jobs Initiative. Two of our workforce development partners W RTP/Big Step and Employ Milwaukee, Inc, are both listed as "High Road" training programs. These training partners "implement demand-driven workforce strategies advancing job quality, equity, and worker voice – that can train America's infrastructure, clean energy, and manufacturing workforce" according to DOL criteria. \$250,000 in the project budget is set aside to work with these agencies on recruitment and training of people from disadvantaged areas for these projects. The core elements of the Community Benefits Agreement includes the following

1. Davis-Bacon Wages and Certified Payroll for installation of EV charging stations and utility-scale solar projects
2. Best efforts to employ 40% of worker hours from unemployed or underemployed City of Milwaukee residents through Milwaukee *Residents Preference Program*
3. 25% of the labor hours and apprenticeships will be done by RPP workers from federally designated disadvantaged areas, with a goal of 40%.
4. Recruitment of workers from disadvantaged communities through Employ Milwaukee, W RTP/Big Step, job fairs, and Milwaukee's Direct Connect MKE jobs app.

b. Community Engagement

For the City of Milwaukee Environmental Collaboration Office (ECO), community engagement and collaboration inherent in our mission and operations. One of the most significant community engagement efforts was the creation of the City-County Task Force on Climate and Economic Equity. The Task Force was created in 2019 to make recommendations on how to reduce community-wide net greenhouse gas emissions and reduce racial and income inequality. It consisted of a dozen representatives of community-based organizations, including the NAACP, organized labor, and environmental groups.

The Task Force, with project management from ECO, developed the 10 Big Ideas in the *Milwaukee Climate and Equity Plan* through nine working groups with over 70 stakeholders and additional community meetings over the course of 3 years of public discussions and planning. Examples of outreach included video surveys, in-person events, working group meetings, town halls, online surveys, and community listening sessions across the city. That feedback was then integrated into the final version of the plan presented to the Common Council for adoption. Community members continue to promote the plan, as well as amplify the voices of residents and others who supported its adoption. The Our Future Milwaukee Coalition was created through the Education and Outreach Work Group and is composed of community organizations and individuals who will carry on the work of keeping the public informed about the progress of the plan while advocating for its full and equitable implementation.

The 10 Big Ideas contained within the *Milwaukee Climate and Equity Plan* include creating utility-scale solar projects, electrifying transportation, and advancing commercial building benchmarking and performance standards. These ideas have informed our decision to launch the CPRG initiative. We will continue to promote community input through a variety of media: in-person meetings, surveys, virtual public interactions, the design and development of a Regional Climate Pollution Reduction Grant community dashboard, social media, flyers, and PSAs. We have learned that meetings require a number of ingredients to make a success: centralized and accessible meeting space; strong audio systems; translation of materials and presentations for speakers of languages other than English; a written, posted agenda also translated into languages required; authoritative meeting facilitation; mutual introductions of all who are present is essential; and listening more than speaking is highly valued. After adoption of the *Milwaukee Climate and Equity Plan*, the City-County Task Force on Climate and Economic Equity was made

permanent under its new title, the City-County Advisory Board on Climate and Economic Equity, which endorsed this proposal.

Over the past five months, ECO has intensified stakeholder conversations with municipalities, civic groups, public sector allies and stakeholders to explore the development of the Climate Pollution Reduction Grant proposal. Mayor McBride of Wauwatosa and Erick Shambarger from ECO presented on the CPRG plan and the concept of shared sustainability staff at two meetings regional mayors, and this grant could be the catalyst for new regional collaboration and dialogue on climate action.

Community outreach events are already being held on the City's forthcoming benchmarking and ordinance policy with in-person education and feedback sessions targeted to the commercial building community, environmental organizations, and other key partners. The creation of a Commercial Building Resource Center will further assist with community outreach on commercial building energy efficiency by serving as a location for the building community to pose questions, hear recommendations, and receive education necessary to make well-informed decisions for their properties.

As part of ECO's efforts to electrify transportation in the region, a *Preliminary Electric Vehicle Readiness Plan* was created to guide the build out of electric vehicle charging infrastructure in the Milwaukee area. Within the plan, an outreach strategy is outlined including engaging the community to define equity and priority areas, developing a Needs Assessment that includes quantitative items to ensure community voices are prioritized over quantitative data, the use of non-traditional outreach methods such as door-to-door visits, and establishment of consistent language and formatting for all outreach materials. Further, in order to create the final *Comprehensive EV Readiness Plan for Milwaukee*, planning will involve significant public outreach from the general public, including individuals who currently own an electric vehicle, those who are interested in owning an electric vehicle, and other key stakeholders like underserved communities and populations that don't currently have high rate of EV ownership who can share the challenges in adoption.

In Wisconsin, the University of Wisconsin-Madison Division of Extension received \$1M through the U.S. Department of Energy's Renewable Energy Siting through Technical Engagement and Planning (R-STEP) Program to lead a collaborative effort to engage stakeholders and expand education and facilitation services in the state to achieve coordinated, equitable, inclusive, and transparent processes for renewable energy and battery storage facility siting. The program is focused on developing and expanding statewide initiatives that provide expertise, training, and technical resources to local governments and communities as they plan for and evaluate large-scale renewable energy and energy storage projects. This work will support Milwaukee's collaboration with SEWRPC, the City Planning and Division, and WE Energies to explore possible locations for utility-scale solar arrays.

The character and style of community outreach will be tailored to the geography, setting and character of the communities we are approaching. The ECO Neighborhoods Initiative is an example of resident-led outreach by neighborhood groups to identify a neighborhood's priority environmental issues, existing assets and other resources, partnerships, and activities to work toward climate action goals. ECO supports an ECO Neighborhood Team composed of residents and community leaders to improve their environmental impact on air, land, and water. ECO Neighborhoods in Milwaukee include Lindsay Heights, Sherman Park, and Century City Triangle Neighborhood. The response to our outreach and dialogues has been overwhelming and positive. ECO is now developing plans to intentionally partner with Latino community-based organizations on Milwaukee's South side to enhance the cultural diversity of our team and match the community demographics where Spanish-language services and materials are needed.

To reduce all possible barriers to community participation, the Regional CPRG collaborators: 1) assess our capabilities and possible address deficiencies: technical language too dense, translate materials and simplify information for lay consumption, dedicate time and agenda in all meetings to build relationships

and trust; 2) materials, information, and decisions are transparent and available in a variety of media: print, on-line dashboard, social media, emails; 3) leverage other public meetings and agendas to present materials; 4) be open to criticism and deficiencies by holding open evaluations of each and every activity with the community; and 5) seeking those who are often not part of the conversation (e.g. youth, elders, non-English speakers, disabled); and by looking for referrals and recommendations from participants.

Additional Community Engagement and Outreach will be required to achieve the objectives and outcomes of the project. These include: 1) Regional Kick-Off Event, 2) Meetings in key geographical locations and jurisdictions, 3) CPRG Coordinating Council - representatives of the jurisdictions, public utilities commission, and participating collaborators in industry, vehicle fleet management and building energy efficiency

4. Job Quality

Workforce development is a key element in any Climate and Environmental Justice project to assure we are keeping our local community meaningfully engaged in the project. This project will generate high-quality jobs, employ strong labor standards, and draw from a diverse and highly skilled workforce, as reflected in our budget request consistent with US DOL's Good Jobs Initiative standards. We will partner with Employ Milwaukee, the local workforce development agency, to generate a pipeline of highly skilled local employees to put to work on this project. We are also working with the City of Milwaukee to develop a post-project job resource plan to help employees working on this project to obtain further high quality jobs. In March 2024, Milwaukee's regional electric utility, We Energies, pledged to use union labor on all of their construction projects.⁴ Labor unions in turn have committed to recruiting and employing disadvantaged workers consistent with this proposal.

The CPRG measures will be implemented by the City of Milwaukee and partners to ensure compliance with all regulatory requirements, Executive Orders and applicable statutes. The City's proposed budget includes funding for a Green Jobs Coordinator who will ensure compliance with the proposed Community Benefits Agreement and Davis-Bacon reporting. Construction activities will be subject to prevailing wage requirements as determined by the U.S. Department of Labor under the Davis-Bacon Related Acts (42 USC §7614) authority. Our project will assist with training and implementation of the DBRA requirements that are offered by the Department of Labor and the Wisconsin Department of Workforce Development. Certain projects that may be funded under this competition may be subject to domestic content sourcing requirements under the Build America, Buy America (BABA) provisions of the Infrastructure Investment and Jobs Act (IIJA) (P.L. 117-58, §§70911-70917). These provisions apply when a grantee uses federal funds for the purchase of goods, products, and materials on any form of construction, alteration, maintenance, or repair of public infrastructure in the United States.

The Buy America preference requirement applies to all of the iron and steel, manufactured products, and construction materials used in an infrastructure project under an award for identified EPA financial assistance funding programs.

These sourcing requirements require that all iron, steel, manufactured products, and construction materials used in federally funded infrastructure projects must be produced in the United States. Our project team will implement these requirements in its procurements, and ensure that these requirements must flow down to all subawards and contracts at every tier.

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<https://www.jsonline.com/story/money/business/energy/2024/03/26/wisconsin-utilities-vow-to-use-union-labor-for-clean-energy-projects/73065887007/>

CPRG implementation grants will be subject to Build America Buy American (BABA) as part of the Infrastructure Investment and Jobs Act of 2021. Under BABA, the Buy America preference applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. The purchase of articles, materials and supplies will be made in compliance with BABA and with assistance from NIST and the Manufacturing Extension Partnership. In addition to managing BABA requirements, all procurements under grants will be subject to the domestic preference provisions of 2 CFR §200.322.

Workforce Training and Development - Employ Milwaukee is the Area Workforce Development Board in Milwaukee County. Regional neighboring counties have local workforce development boards for coordination of employee or trainee candidate outreach, recruitment, hiring and retention. Employ Milwaukee offers a wide range of placement, training and employment support services including assistance with transportation, and many other linkages to family support services. Employ Milwaukee hosts the Healthy Homes Construction and General Construction Training. The remediation of lead, asbestos and mold are critical elements of clean-up ahead of building energy retrofits or electrification.

Regional Apprenticeship Connections are critical for the development of a new, skilled workforce to tackle GHG emissions. A great deal of this work will involve the building trades with a focus on electrical for homes, businesses and transportation. Milwaukee Electrical Joint Apprenticeship Training Committee is a partnership of International Brotherhood of Electrical Workers (IBEW) and National Electrical Contractors Association (NECA) that offers electrical apprenticeship training and certification from Journeyman through Master Electrician levels.

5. Programmatic Capability and Past Performance

a. Past Performance

Milwaukee's Environmental Collaboration Office has an outstanding tracking record partnering with federal agencies including US EPA and US DOE to utilize federal funds to deliver tangible results in Milwaukee. ECO's Director, Erick Shambarger, has successfully managed federal grants since 2009 on behalf of the City of Milwaukee.

ECO administers the City's allocation of the Energy Efficiency and Conservation block Grants. This includes the \$5.8million Energy Efficiency and Conservation Block grant from 2009 and the \$522,370 EECBG grant from 2023. With the 2009 grant, ECO installed Milwaukee's first coastal wind turbine;, installed the City's first bikeshare station that has since grown into a citywide network; spearheaded energy efficiency projects municipal facilities; launched the Me² home energy efficiency program that continues to this day; installed LED streetlights, and more.

ECO also directly partners with the US EPA to deliver housing programs to disadvantaged communities. ECO has successfully delivered a 2020 EPA SEJCA grant and is the recipient of a 2024 EPA Environmental Justice G2G grant in partnership with a total of four community-based organizations. ECO meets reporting deadlines, administers grants according to the law, and delivers results. ECO is backed by the Community Development Grants Administration, Purchasing Division, Comptroller's Office that also are involved in ensuring overall compliance with federal rules, audit procedures, and local laws.

Since 2008, the Milwaukee Shines Solar Program provides affordable financing and Solar Group Buy programs to residents. Milwaukee was one of the first 14 cities to win the Solsmart Gold Award for

streamlining the process to get solar permits. The Solar Group Buy program has helped about 300 property owners install 1.7 megawatts of solar. Over 10 megawatts of solar energy have been installed on Milwaukee homes and businesses to date. The City's original goal of 1 megawatt of solar capacity has far been exceeded.

Since 2010, the Milwaukee Energy Efficiency Program (Me²) has offered affordable loans and incentives to homeowners for energy efficiency upgrades. Homeowners who have had their home inspected, insulated, and air sealed through the program have averaged a 30% reduction in energy use. The program has retrofitted over 1,500 homes since its creation.

In 2012, ECO installed a 100-kilowatt wind turbine at the Port Milwaukee Administration Building using federal EECBG funds with Buy America requirements and Davis Bacon wage reporting. The turbine provides more than 100% of the building's electrical needs, allowing surplus clean power to be delivered back to the power grid. The Port has avoided releasing over 1,025 metric tons of carbon dioxide into the air and is the first City of Milwaukee municipal facility that is a "net zero" electric energy user.

In 2013, ECO developed Wisconsin's first Property Assessed Clean Energy (PACE) Financing Program to help commercial property owners affordably finance energy or water efficiency, renewable energy, electric vehicle infrastructure, energy reliability, stormwater controls or "green infrastructure," and other resiliency upgrades in their buildings. The program has financed over \$40 million in energy efficiency projects, saving commercial building owners over \$2 million annually. The PACE Financing program has been designated a National Implementation Model by the U.S. Department of Energy.

In 2015, the Milwaukee Better Buildings Challenge was launched in partnership with the U.S. Department of Energy and many local partners. This voluntary program helped commercial buildings benchmark their energy use, provided free energy assessments to identify improvement opportunities, connected building owners with PACE financing, helped train and employ workers in partnership with MATC, and provided awards and recognition to leading participants. The program was recognized as a national model for outreach and communication. The program is no longer due to limitations of grant funding during the last administration. However, that project informs the work of the proposed Commercial Building Resource Center and proposed benchmarking ordinance.

Starting in 2018, Milwaukee advocated for We Energies to create new options for large customers to purchase renewable energy. In response, the utility created two pilot programs for this purpose, including the "Solar Now" program. ECO worked with them to use the Solar Now Program to finance a solar project on a City-owned landfill. Completed in 2021, the solar array is a 9-acre, 7,200 panel project producing 2.25 megawatts of energy. The array also supports grid resiliency and emergency preparedness for the adjacent Air National Guard. Further, this year ECO has entered into agreement with We Energies to build an additional 11 megawatts of solar energy to meet the City's 25% renewable energy by 2025 goal using its *Renewable Pathway* program that ECO developed with the utility in partnership with the utility and Wisconsin Public Service Commission. Looking forward, this CPRG proposal will help the City of Milwaukee finance up to 78 additional MW of solar through the Renewable Pathway program to achieve 100% renewable energy for City operations (including the Water Works) as early as 2026.

In 2019 the City of Milwaukee also adopted its *Green Infrastructure Plan*, which states a goal of installing 36 million gallons of stormwater capture by 2030 through rain barrels, cisterns, rain gardens, native landscaping, permeable pavement, bioswales, stormwater trees, regenerative stormwater conveyance, depaving, green streets and alleys, greenways and land conservation, green and blue roofs, and soil amendments. A baseline inventory found that nearly half of the City was impervious surface. Under the plan, funding is prioritized for green streets, schoolyards, and parking lots projects. In addition,

all large developments and redevelopments are required to capture the first ½ inch of rainfall using green infrastructure.

In 2019 the City-County Task Force on Climate and Economic Equity was additionally created to make recommendations on 10 Big Ideas to reduce emissions and reduce racial and income inequality by assuring that greenhouse gas reduction investments and policies will create the maximum number of permanent living wage green jobs for people who live in the most impoverished Milwaukee neighborhoods with limited economic opportunity. In 2022, after convening resident and expert working groups for three years, the Task Force submitted its recommendations to the Common Council. ECO hired a consulting firm to take these recommendations and develop a formal *Climate and Equity Plan*, which was officially adopted as part of the Citywide Policy Plan contained in the City's Overall Comprehensive Plan. The City-County Task Force on Climate and Economic Equity changed to the City-County Advisory Board on Climate and Economic Equity and is charged with submitting an annual report to the Common Council on the status of the plan's implementation.

In 2023, the City of Milwaukee passed an updated ordinance requiring departments to purchase low- or zero-emission vehicles with the goal to replace City-owned or leased vehicles with those that operate with cleaner, sustainable alternative fuels. The City of Milwaukee Department of Public Works, Police Department, Fire Department, and Port are directed to report annually on the progress of the transition. ECO has also developed a Preliminary Electric Vehicle Readiness plan coordinating WisDOT and the State NEVI Plan for charging station placement in Milwaukee. ECO is working with the U.S. Department of Transportation to apply for future rounds of funding, possibly in cooperation with other local communities, to build out area public electric vehicle charging infrastructure.

b. Reporting Requirements

The City of Milwaukee Environmental Collaboration Office (ECO) has extensive experience with reporting for a variety of purposes: financial, programmatic, technical and particularly GHG and PM reporting with analysis. The City is receiving technical support from NREL to model GHG emissions. The City maintains a Grants Management and Reporting team of professionals who develop a System for Project Reporting with key data collection and metrics. Project Staff for CPRG or other initiatives are orientated to the System for Reporting and training on inputs and data for both programmatic, financial and technical reporting. The CPRG Project Team will work with the Grants Management group to prepare internal and external monthly reports on a Dashboard that is public-facing and transparent.

On the CPRG Program, ECO will work with staff at National Renewable Energies Lab (NREL) through the Exact Match Program and with other pay-in services to assist ECO staff to:

- 1) Design a CPRG data collection system,
- 2) Monitor CPRG implementation measures, personnel, and financial data collection,
- 3) Review CPRG reports and analysis
- 4) Review annual CPRG report to EPA
- 5) Make adjustments to data collection system analysis and reporting to EPA as needed

National Renewable Energy Labs (NREL) has assisted the ECO team and partners to analyze existing energy models for the implementation measures that the City and SEWRPC have identified in their Priority Climate Action Plan. Through Exact match and also direct work with the NREL CPRG team, we identified 3 models that were most promising and presented the best results possible. The models all have weaknesses, as any metric-based model attempting to replicate the real-world will confront. The models

chosen: AFLEET, ComStock and Re-Opt each integrate multiple data sources and are being tweaked by the FFRDC and Agencies regularly.

Grants Management - Staff from City of Milwaukee's ECO will provide data collection, grant reporting, and financial oversight to the CPRG activities. The ECO Executive Director will supervise the project staff, coordinate communications among project staff at 3 sites, and provide management on all aspects of the CPRG Program.

c. Staff Expertise (Existing Staff)

The City of Milwaukee Environmental Collaboration Office (ECO) **Sustainability Director** is Erick Shambarger. Erick is an innovative environmental sustainability director with 20 years of executive experience and accomplishments in energy efficiency, clean energy, organizational leadership, budgeting and operations, finance, and program management. Erick helped establish and now leads ECO. Erick led development of the *Milwaukee Climate & Equity Plan*, *Milwaukee Green Infrastructure Plan*, and successful programs including Wisconsin's first Property Assessed Clean Energy (PACE) Financing Program, Milwaukee Energy Efficiency Program, and Water Centric City Initiative. Erick's work extends beyond City government by co-founding the Wisconsin Local Government Climate Coalition, of which he now serves as President. He will bring that leadership to a shared sustainability program for Southeastern Wisconsin.

ECO, under Erick's leadership, has successfully delivered millions of dollars of energy efficiency projects, including the \$5.8 million Energy Efficiency and Conservation Block Grant Program under ARPA; a \$1.5 million program for market transformation through the U.S. Department of Energy (what became our local Better Buildings Challenge); a \$1 million Environmental Protection Agency G2G Environmental Justice Cooperative Agreement, and more.

Overall, the City of Milwaukee manages nearly \$167 million in grant funding with support from the Community Development Grants Administration, Comptroller's Office, Purchasing Department, and a financial system which meets single-audit requirements of all grants. Key personnel in these offices and departments have multi-year experience and are highly-qualified in grants management. Of note, the City of Milwaukee has received the Certificate of Excellence in Financial Reporting for fiscal year 2021 and 2022 from the Government Finance Officers Association. Erick is part of the CPRG budget and staff team.

The City utilizes Oracle's PeopleSoft Financial Management System for grant operations that includes budgetary controls and standards for segregation of expenditures by grant and program year and distinguishes direct and indirect costs. The financial management system has accounting and internal controls that provide for monitoring of grant activities to ensure that obligations and expenditures are reasonable, allocable, allowable and documented. The system ensures that adequate books and records are maintained to support financial reporting requirements. Erick will review and sign off on invoices over \$5,000 to assure work is completed to division standards prior to payment. Eric will also work with internal accountants to routinely monitor expenditures to assure alignment with EPA and Federal requirements.

The City of Milwaukee Environmental Collaboration Office (ECO) **Business Finance Officer** is Zachary Allen. Zach oversees purchasing, budgeting, and other financial accounting within the department. Zach holds a bachelor's degree in Economics from Marquette University. He will support grant reporting and monitoring. Kate Pawasarat serves as the **Community Analytics Analyst** in the City of Milwaukee Department of Administration. With a background in data management, applied research, community development, and environmental justice, she informs decision-making through innovative approaches in

data analytics, data visualization, and mapping. She plays a key role in managing and tracking performance measures and program recipient data for the city's American Rescue Plan funded projects as well as other city initiatives. Kate's past work experience includes over six years of environmental data analysis, first as a Research Associate with the U.S. Environmental Protection Agency and then as an Engineering and Science Fellow at the Interdisciplinary Environmental Clinic at the Washington University School of Law.

The **Community Energy Sustainability Managers** hired under this grant will support its activities and reporting requirements as needed. Managers will hold a Bachelor's Degree from an accredited college or university in business administration, public administration, public policy, environmental studies, or a similar related field. Additional schooling is a plus. They will also have several years of experience in project management, knowledge of energy efficiency programs and electric vehicles, and experience in data management. They will support future grant applications, capital budget planning, and outreach activities.

ECO and the CPRG Program will work closely with key City of Milwaukee Departments and Commissions to coordinate implementation measures, approvals, permitting and collaboration. The City of Milwaukee operates the Department of Neighborhood Services (DNS) and that department manages land use, site approvals with legislative authority, permitting, and certificates of occupancy or completion. The ECO team has forged deep relationships of trust with the DNS to move projects forward quickly. The City also partners with Wisconsin utilities on www.focusonenergy.com- a clearinghouse for EE/RE information, incentives, rebates, credits and more for residential and small commercial. Erick S. is a member of the City Department Leads Team and that group of Department Heads meets regularly.

Most counties or municipalities in the Milwaukee MSA do not have dedicated staff or rely on volunteer community members to support sustainability programs. The following list provides examples of existing groups and resources that are currently in-place:

- The City of Milwaukee and Milwaukee County have dedicated departments focusing on climate and sustainability work. The City of Milwaukee Environmental Collaboration Office and the Milwaukee County Office of Sustainability work on a range of sustainability projects and have capacity to pursue state and federal funding sources.
- The City and County of Milwaukee formed the City-County Task Force on Climate and Economic Equity in 2019 for the purpose of making recommendations on how to address the ongoing climate crisis, ensure Milwaukee meets its obligations to reduce greenhouse gas emissions as much as is determined necessary by scientists, and mitigate racial and economic inequity through "green" jobs.
- VISION 2050, the region's long-range transportation and land-use plan includes numerous recommendations to sustainably develop our region such as encouraging sustainable and cost effective growth, preserving the most productive farmland, encouraging more compact development, improving and expanding public transit, and enhancing bike and pedestrian networks.

6. Budget (Optional Budget Spreadsheet and up to 10 additional pages may be added if needed as an appendix to the Work Plan)

EPA EXCEL SPREADSHEET - This is Budget Justification

Milwaukee Regional GHG CPRG Budget							
Categories	Line Item & Itemized Costs	Year 1	Year 2	Year 3	Year 4	Year 5	Total EPA Funding
PERSONNEL							
	Project Manager @ \$100,000, 1.0 FTE with salary increases						
	4 GHG Program Managers @ \$75,000, 1.0 FTE, with salary increases	\$300,000	\$315,000	\$330,750	\$347,287	\$364,651	\$1,657,688
	TOTAL PERSONNEL						\$
FRINGE BENEFITS							
	Full-time Employees @ 45% of salary						
	TOTAL FRINGE	\$11,900	\$12,750	\$13,600	\$14,450	\$15,300	\$68,000
TRAVEL							
	Travel for conference and workshop presentations:						
	Airfare - \$400 roundtrip @ 1 roundtrip per year	\$400	\$400	\$400	\$400	\$400	\$2,000
	Luggage Fees - \$25 per flight @ 2 flights per year	\$50	\$50	\$50	\$50	\$50	\$250
	Hotel - \$150 per day @ 3 days per year	\$450	\$450	\$450	\$450	\$450	\$2,250
	Per Diem - \$71 per day @ 3.5 days per year	\$249	\$249	\$249	\$249	\$249	\$1,243
	Taxi - \$45 per year	\$45	\$45	\$45	\$45	\$45	\$225
	Parking - \$20 per day @ 4 days per year	\$80	\$80	\$80	\$80	\$80	\$400

	Mileage for local travel (500 miles per year at \$0.655/mile)	\$328	\$328	\$328	\$328	\$328	\$1,638
	TOTAL TRAVEL	\$1,601	\$1,601	\$1,601	\$1,601	\$1,601	\$8,005
EQUIPMENT							
	TOTAL EQUIPMENT	\$18,000	\$0	\$0	\$0	\$0	\$0

b. Expenditure of Awarded Funds

The City of Milwaukee will utilize its existing accounting and management system to move funding through organization auditing checks. Grant agreements and payments to subgrantees will proceed quickly and in compliance with EPA's Subaward Policy and the Automated Standard Application Payments (ASAP) and Proper Payment Draw General Term and Conditions of EPA Financial Assistance Agreements. The City of Milwaukee will: (1) Ensure subawards and contracted services are clearly identified in reporting to EPA; (2) Evaluate contractors and partner risk of noncompliance with Federal statutes, regulations, and other terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring; (3) Consider imposing specific conditions upon a funded entity, if appropriate; (4) Monitor the activities of the recipients to ensure funds are used for authorized purposes; (5) Employ monitoring tools, as necessary, to ensure proper accountability and compliance with program requirements and performance goals; (6) Verify that every subrecipient is regularly audited and provides sufficient reporting documentation; (7) Consider whether the results of the subrecipient's audits, on-site reviews, or other monitoring indicate conditions that necessitate adjustments to organizational practice or partnering obligations; and (8) Consider taking enforcement action against noncompliant subrecipients. The City of Milwaukee will utilize the EPA Subaward Policy Appendix D: Subaward Agreement Template to ensure compliance with the subaward content requirements in 2 CFR 200.332(a).

c. Reasonableness of Costs (10 possible points)

The City of Milwaukee is planning to work on 3 implementation measures to reduce GHG pollution: Public Deployment of EV Charging Stations. Installation of Utility-Scale Solar Arrays and Building Energy Efficiency measures all implemented by full-time Community Sustainability Managers working under the Project Manager.

Personnel and Fringe Benefits: Community Sustainability Managers (3 or 4) will be allocated to each of the three measures commensurate with the level of management needed of staff and oversight requirements to contractors and subrecipients. The majority of the staffing costs occur with the charging stations and building energy efficiency measures due to the complexity of the installations, contracting, construction, and oversight. EV Charging Measure incentives require staff time but dramatically more subrecipient services and contracted services in order to reach the underserved target community residents. Salaries and fringe benefits are set at a level that matches entry-level sustainability manager salaries.

Travel costs in EV and Building Energy Efficiency Measures are required to ensure the place-based projects, outreach, engagement, and oversight are conducted in a cost efficient, but still rigorous manner. Our project includes the City of Milwaukee and parts of 2 neighboring counties, so regional travel is required. We included travel to EPA Conferences and required expenses related to that travel.

Equipment costs are the vast majority of costs due to the extensive network of charging stations and high costs of solar deployment in the region. Costs include all base units and warranty servicing.

Supplies are minimal, amounting to laptops and telephones for each staff member.

Contractual Services include major agreements for GHG reduction measures. First, the contractual budget includes funding for up to 78 MW of new solar installations to serve municipal operations in partnership with our incumbent utility, We Energies. The Service Agreement templates have already been developed and approved by the Milwaukee Common Council, and the cost structure has been approved by the Wisconsin Public Service Commission. Second, the City will also select a firm to design, build, install, and maintain EV Charging infrastructure through a competitive RFP process that includes the Justice 40 siting requirements and requirements for the firm to abide by the Community Benefits Agreements for installation labor, following the City's *Preliminary EV Readiness Plan* and incorporating additional public comment. Third, the City will issue a competitive RFP to hire a firm to provide the virtual Commercial Building Resource Center to assist property owners with benchmarking and access to tax credits, green bank financing and more.

Other Costs are zero

Indirect Charges are zero

Subawards will be made to the City of Wauwatosa.

The subawards are based on negotiated personnel and fringe benefits costs with the municipalities providing offices and administrative support. The proposed subaward subject to further negotiation to the City of Wauwatosa is \$1,163,742. These costs are categorized in Personnel, Fringe Benefits, Equipment, and Travel but could be changed to be listed as "Contractual" at US EPA direction.

Overall GHG Reductions and Budget by Measure

EV Charging Stations represent the following reduction of GHG from 2025-2030 - 752 Tons and GHG Reductions of 3,008 Metric Tons from 2030-2050.

The total budget for EV Charging Stations Costs is **\$3,459,973.00**

Utility-Scale Solar Arrays represent the following reduction of GHG from 2025-2030 - 123,725 Tons and GHG Reductions of 494,900 Tons from 2030-2050.

The total budget for Large Solar Array Costs is **\$3,464,521.00**

The total budget for Building Energy Efficiency Costs is **\$ 3,072,572.00**

The Total Budget is \$ 9,997,066.00

Total GHG Reductions 2025-2050 are 624,175 Tons

Average Cost Across Measures for 1 Ton of GHG Reduction = \$16.01

