**CIRDA Climate Pollution Reduction Program for Aligned Regional Development - Workplan**

**Section 1: Overall Project Summary and Approach**

1a: Description of Greenhouse Gas (GHG) Reduction Measures

Central Indiana’s history as a fossil-fuel intensive industrial center and commercial transportation crossroads means that blight, brownfields, high annual particulate matter pollution, low water quality, and lack of green space negatively impact all Central Indiana residents and disproportionately impact low income and disadvantaged communities (LIDACs) in the Indianapolis-Carmel-Anderson, IN Metropolitan Statistical Area (MSA), where approximately one-third of the state’s population resides. Statistics tell the story:

* The American Lung Association ranks the MSA as the 13th worst in the country in highest yearly average particulate matter levels. One in five children in Marion County is affected by chronic asthma (double the rate in the Indiana and the U.S. average);
* The White River that traverses Central Indiana, including some of Indianapolis’ most disadvantaged neighborhoods has, for 200 years, been one of the country’s most polluted waterways. Indiana ranks 40 out of 50 in water quality;
* Only 35% of Indianapolis residents have a park within a 10-minute walking distance (vs. the national average of 55%);
* Highest summertime maximum daily temperatures and the lowest infant birth rates occur in central and southwest Marion County, which are also areas of high social vulnerability;
* The Climate Hazard and Social Vulnerability Assessment for Indianapolis indicates that average temperatures in the city have risen by 2.2°F between 1951 and 2014—nearly double the state average of 1.2°F.

Of the eight midwestern states, Indiana has the fewest actions to address climate change, according to the Fifth National Climate Assessment (NCA5). It is time for Indiana to implement mitigation strategies with concerted collaboration and rigor. As Central Indiana leads the way for the rest of the state, change starts here. To address current deficiencies and prepare for climate change impacts, the Central Indiana Regional Development Authority (CIRDA) proposes three distinct GHG reduction measures that, together, will ensure that Indiana’s most diverse and populated region, Central Indiana, creates a healthier environment while laying the groundwork for sustainable and inclusive economic growth.

*GHG Reduction Measure #1: CIRDA Regional Building & Asset Modernization Program*

The CIRDA Regional Building and Asset Modernization program seeks to fund clean energy and energy efficiency upgrades to buildings and infrastructure across Central Indiana. This program will reduce greenhouse gas (GHG) emissions via a variety of projects, including public building clean energy retrofits, including electrification, industrial energy efficiency and solar installations, wastewater treatment improvements, and increased mobility options including various forms of public transportation, micro-mobility efforts, ride sharing, and electric vehicle charging. Public, nonprofit, and private entities will be eligible for program implementation support provided through CIRDA in the form of low- to no-match grants, and CIRDA will establish a revolving fund that provides both grants and loans to support the long-term financial sustainability of the program’s operations.

Seven pilot projects have already been identified as potential recipients of program funding, including: City of Indianapolis Solar Upgrades, McCordsville Town Hall Energy Efficiency Updates, Energy Insights Program (which will provide energy audits and optimization for at least 100 manufacturing facilities), Rolls Royce HVAC Optimization and Submetering, Rolls Royce Photovoltaics (PV) Solar, Crispus Attucks High School Energy Efficiency Renovations, and Indianapolis Art Center Efficiency Upgrades. Additionally, several project proposals have been identified for funding in year two of the program and beyond including, for example: clean energy upgrades at historic public buildings, public transportation efforts, and energy efficiency upgrades to a wastewater treatment facility.

This program, and the one presented below, will select projects and award types based on three criteria: applicant designation (private, public, nonprofit), LIDAC benefit, and GHG reduction potential. Upon notice of EPA funding, a matrix will be developed to score each project. Criteria weight will be based on the refined metrics for programs outcomes and will reflect the goals of the EPA CPRG program. Upon project review and scoring, projects will either be denied in a failure to meet criteria, receive a low- to no-matching grant through the revolving fund, or receive a loan award through the revolving fund that will be repaid over a defined number of years and support the revolving nature of the proposed programs. This review process will allow CIRDA to leverage the skill sets and experience of its member communities’ staff while maintaining community engagement, maximizing flexibility and sustainability, and empowering communities to benefit from a diverse offering of GHG reduction options.

Central Indiana is a post-industrial region with 401 brownfields that are functionally useless properties. The revitalization of any brownfield is an opportunity to deploy renewable energy sources and affordable housing and economic development projects to serve the broader community. While there is great interest across the region in these revitalization projects, they require significant subsidy to be feasible in the current economy. CIRDA will prioritize brownfield remediation and redevelopment through the proposed program to bring these properties into productive and sustainable use.

*GHG Reduction Measure #2: CIRDA Regional Open Space Revitalization & Connectivity Program*

The CIRDA Regional Open Space Revitalization and Connectivity program will target the reclamation and revitalization of degraded lands throughout Central Indiana, many of which are located adjacent to or within LIDACs. The post-industrial landscape results in land that is dangerous to nearby communities and a barrier to development. Only 4% of Indianapolis’s land is used for parks and recreation; the national average is 15%. Combined with the region’s health and heat risks, which disproportionately impact LIDACs, this shortage of greenspace constitutes a significant problem that can be solved with strategic investments. This program will support environmental and wetlands remediation, land enhancement, trail development, and urban afforestation to reduce GHG emissions while simultaneously improving quality of place, recreation, and public health in the region’s LIDACs. The program will also support limited economic development when land can be used to provide housing and/or job opportunities while also providing additional open, public greenspaces. Like the CIRDA Regional Building and Asset Modernization program, the CIRDA Regional Open Space Revitalization and Connectivity program will provide low- to no-matching grants to eligible applicants (public and nonprofit entities), and will establish a revolving fund that provides both grants and loans (to private entities) to support the program’s long-term financial sustainability.

Five pilot projects have already been identified as potential recipients of program funding, including: City of Indianapolis Brownfield Julietta Landfill, Nickel Plate Pedestrian Bridge, Grassy Creek Trail, Conner Prairie Reforestation, and Conner Prairie Wetland Enhancement and Fertilizer Education Program. Several other projects have been identified as ready for funding in year two of the program and beyond.

*GHG Reduction Measure #3: Indianapolis Area Renewable Energy & Waste Reduction Operation Program*

CIRDA, in partnership with the Indianapolis Motor Speedway, the American Dairy Association

Indiana, Inc. and Newtrient, a provider of environmental solutions to the dairy industry, will create the first-ever, large-scale food waste collection program across the City of Indianapolis. Leftover food waste collected from large-scale events, restaurants, and grocery stores will be transported to an anaerobic digester on a local dairy farm, where it will create renewable natural gas (RNG) that will power local businesses and fleets in Central Indiana. The digester will also help eliminate animal waste from the selected farm thereby reducing nitrous oxide emissions from fertilizer application. This project will divert at least 200 tons of food waste from landfills annually and 25,000-75,000 of total solids per day resulting from events and tourism throughout the MSA. As a novel, scalable approach to dealing with organic waste, the Indianapolis Area Renewable Energy and Waste Reduction Operation will serve as a high-profile model for reducing waste related GHG emissions by linking urban food waste to a rural digester operation. As event venues and communities adopt this model, the unique practice of eliminating waste using anaerobic digesters will be accelerated across Indiana.

These three priority GHG reduction measures comprise a variety of actions to reduce GHG emissions in the region, while also positively impacting quality of place, public health, and economic development. The table below shows the sectors and tasks and milestones for the implementation of each measure:

*Table 1: GHG Reduction Measures and their Features*

| **GHG Reduction Measure** | **Sectors** | **Implementation Tasks & Milestones** |
| --- | --- | --- |
| CIRDA Regional Building & Asset Modernization Program | Energy & Buildings, Transportation, Industry | Q3-Q4 2024: Program preparation  Q4 2024-Q4 2026: Pilot projects funding and implementation  Q3 2025-Q4 2026: Tranche 2 funding and distribution  Q1 2027-Q3 2028: Tranche 3 funding and distribution; all funding distributed by EOY 2028 |
| CIRDA Regional Open Space Revitalization & Connectivity Program | Open Space/ Land Management, Transportation | Q3-Q4 2024: Program preparation  Q4 2024-Q4 2026: Pilot projects funding and implementation  Q3 2025-Q4 2026: Tranche 2 funding and distribution  Q1 2027-Q3 2028: Tranche 3 funding and distribution; all funding distributed by EOY 2028 |
| Indianapolis Area Renewable Energy & Waste Reduction Operation | Waste, Electricity, Agriculture | 2025: Grant consolidation, feedstock procurement and RFP for digester.  2026: Engineering, permitting and procurement  2027: Construction and buildout  2028: Startup and interconnection  2029: Monitoring, validation and initial energy credit generation |

More information on the measures’ timelines, milestones, and tasks is available in *Section 3c: Authorities, Implementation Timeline, and Milestones*. These details were established conservatively to reflect potential risks that could impact program implementation, as shown in *Table 2* below:

*Table 2: GHG Reduction Measures and the Assumptions and Risks that may impact their implementation*

| **GHG Reduction Measure** | **Assumptions** | **Risks with Impacts to Timely Project Completion and GHG Emissions Reductions** |
| --- | --- | --- |
| All three proposed measures | Assumes: A typical inflation rate; payments on-time from any additional funders or receipt of late funds with delays no greater than 30 days; scheduling delays no greater than 60 days due to weather or workforce issues; minimal work stoppages due to climate impacts; minimal impacts to infrastructure due to climate impacts; full anticipated program utilization (up to 5% margin of error); no significant natural disasters during the grant period; and no reduction in project scope due to lack of funding availability | Low Risk of Impacts: Unanticipated cost increases / continued inflation; delayed payments from funders, if other funders are needed; scheduling delays due to severe weather or construction workforce shortages  Moderate Risk of Impacts: Climate change impacts due to heat, fire or flooding; lower than projected program utilization  High Risk of Impacts: Natural disasters; reduction in project scope due to lack of funding availability |

As demonstrated in *Table 2*, the most significant threats to the successful implementation of the proposed measures are natural disasters and the lack of full funding in a single distribution, the first of which is highly unlikely and the second of which would result in a reduced project scope in the short term and delays in implementation over time. Without the EPA’s Climate Pollution Reduction Grant (CPRG) opportunity, the Central Indiana region cannot implement the proposed programs on the proposed timelines, as even if some funds are otherwise available, the time required to aggregate them from other foundations and agencies will cause a loss of momentum that will adversely impact program prioritization. Furthermore, if such funding opportunities cease to exist, the result will be devastating to communities that lack alternatives to CPRG funding. Without CPRG funding, meaningful, regional and multi-jurisdictional GHG reduction is unlikely to occur, and the achievement of these programs’ intended outcomes – job creation, brownfield remediation, GHG emissions reductions, and critical improvements to regional connectivity and quality of life – will plummet.

As the sole applicant for the proposed GHG reduction measures, CIRDA retains exclusive responsibility for the implementation of the three measures. By following the above plans closely, relying on hundreds of professional staff members of its member communities and retaining industry experts, CIRDA will ensure the timely, complete, and successful implementation of its proposed GHG reduction measures.

*Selection of the GHG Reduction Measures*

As the recipient of a CPRG Planning Grant, CIRDA led the development of the Priority Climate Action Plan (PCAP) for Central Indiana/the MSA. The entire project team for PCAP included CIRDA, the Indianapolis Metropolitan Planning Commission, the City of Indianapolis Office of Sustainability (other city leadership participated as well), and the City of Fishers, with support from the multinational sustainability consultancy firm, Environmental Resources Management (ERM).

During the development of the PCAP, the project team designed a process for identifying and prioritizing GHG reduction measures that integrated extensive research with stakeholder feedback and a thorough analysis to shape the final priority list. The process included these steps:

* *Extensive Research:* The project team reviewed 45 local government plans, 19 utility and business plans across the region, and best practices and examples for GHG reduction provided by the U.S. Environmental Protection Agency (EPA)
* *Initial List:* The project team created an initial list with a range of potential GHG reduction measures across all sectors to consider for the region
* *Public Feedback:* The project team received 645 responses to public surveys requesting input on a consolidated version of the initial list to assess priorities
* *Updated List:* The project team created an updated list based on public feedback and review of policy barriers to implementation-ready EPA criteria
* *Stakeholder Groups:* The project team received 33 project intake form submissions, and Working Groups shared sector-specific challenges and priorities
* *Analysis:* The team aligned priorities with intake submissions and assessed the 28 proposed measures based on EPA’s criteria (GHG reductions, LIDAC benefits, authority, funding, etc.)

CIRDA shared the results of the process during a PCAP Steering Committee meeting in February 2024. Thereafter, the priority list of measures was finalized in the PCAP. The measures included in this proposal are identical to those included in the region’s PCAP, which is included in the *Other Attachments*.

*GHG Reduction Measure Alignment with EPA Goals*

The CPRG Implementation Grants General Competition Notice of Funding Opportunity lists four program goals: 1) implement ambitious measures that will achieve significant cumulative GHG reductions by 2030 and beyond; 2) pursue measures that will achieve substantial community benefits (such as reduction of criteria air pollutants (CAPs) and hazardous air pollutants (HAPs)), particularly in LIDACs; 3) complement other funding sources to maximize GHG reductions and community benefits; and 4) pursue innovative policies and programs that are replicable and scalable across multiple jurisdictions.

Accordingly, CIRDA’s proposal aligns with the EPA’s goals as well as its member communities’ goals to uplift communities in need of investment and people in need of opportunities. The cumulative GHG reductions and benefits to LIDACs relevant to each measure are described in *Table 1*. Complementary sources of funding have been analyzed and in some cases secured for each of the measures; these sources are described below in *1b. Demonstration of Funding Need*. Turning two of the measures into revolving fund programs that can be consistently administered and grown over time to implement a variety of aligned projects in the region is an innovative practice that can be scaled; further innovation comes in the form of leveraging these programs to overcome political hurdles to climate action in a Republican-run state. Finally, CIRDA’s three measures accelerate decarbonization across multiple sectors, including the energy and buildings, transportation, industry, open space/land management, waste, electricity, and agriculture sectors. The measures represent a regional commitment to drive equitable economic growth and improve quality of life while combating climate impacts.

1b: Demonstration of Funding Need

During the PCAP planning process, the project team conducted an extensive exploration of federal and non-federal state, local, nonprofit, and private funding sources to determine whether these sources could fund, and/or sufficiently fund, the proposed GHG reduction measures. Each measure was organized by specific actions to determine applicable funding opportunities for each action within a given measure. Through research, the project team also considered eligibility for additional funding opportunities. Ultimately, CIRDA determined that the programs, and their respective identified pilot projects, are not possible without EPA funding.

The project team reviewed available grants, loan programs, tax incentives, and rebates applicable to the GHG reduction measures through a review of the Bipartisan Infrastructure Law Guidebook and Inflation Reduction Act Guidebook. A review of Grants.gov website also provided a list of all relevant current (as of January 2024) and upcoming federal funding sources. Next, the project team identified additional relevant funding opportunities available through the U.S. Departments of Energy, Transportation, Housing and Urban Development, Agriculture, the Treasury, and EPA. In addition, state level funding opportunities were reviewed from the Indiana Department of Natural Resources, Indiana Office of Economic Development, and Indiana Office of Community & Rural Affairs. Available funding opportunities from local agencies, along with relevant nonprofit organizations, were also reviewed through their respective websites. This research culminated in an initial list of potential funding opportunities for each GHG reduction measure.

After filtering the list for eligibility, aligned outcomes, likelihood of success, and timeliness (those closing before February 1, 2024 were excluded), a revised list of applicable, complementary funding sources was confirmed to include: Indiana Energy Efficiency Fund, Environmental and Climate Justice Community Change Grants Program, Production Tax Credit for Electricity from Renewables, Investment Tax Credit for Energy Property, Rebuilding American Infrastructure with Sustainability and Equity Grant Program, Neighborhood Access and Equity Grant Program, Brownfield Assessment and Multipurpose Grants, Forest Service Urban and Community Forestry Challenge Cost Share Program, Charging and Fueling Infrastructure Discretionary Grant Program, Neighborhood Access and Equity Grant Program, National Infrastructure Project Assistance Grants Program, and Metropolitan Planning Program.

Collectively, the maximum funding available through these programs if all grants submitted were fully awarded totals $227,500,000, less than half of the $496,094,580 needed to fully implement the three measures. While CIRDA intends to apply for many, if not all, of these programs, to date, CIRDA has not secured any funding to implement the three proposed measures. However, the CPRG funding opportunity has galvanized CIRDA’s 25 member communities, and has a chance to create great efficiencies that overcome the lack of capacity of individual cities and towns to pursue funding alone.

Indiana is a state that faces great challenges in securing funding to address climate change, pollution, and their respective impacts on Hoosiers, including a low number of local and regional funders who are committed to environmental transformation, capacity issues among the few organizations that are also working in this space, and ever-present political challenges rendering the region’s few opportunities obsolete. And yet, almost one-third (⅓) of the state’s population lives in Central Indiana, making the region critically important. CPRG provides motivation and momentum to advance proposed initiatives that benefit the people and communities most vulnerable to climate change impacts.

1c. Transformative Impact

CIRDA’s measures promise a future where environmental health, economic growth, and community well-being are intricately linked while creating a replicable model for politically conservative regions.

*Replicable and scalable programs to reduce GHG emissions*

CIRDA’s two revolving fund programs will provide the infrastructure and incentives for communities to invest in GHG-reducing projects, which has not been previously prioritized in Central Indiana. Over time, these programs will grow as CIRDA raises additional funding to sustain and expand its efforts beyond an initial EPA grant. By creating a process through which projects with the most significant GHG reductions and benefits to LIDACs are regionally prioritized, CIRDA’s efforts will spur economic mobility while improving health and quality of life.

Diverse communities populate the MSA, and CIRDA’s proposed programs were designed to maximally respond to public input received from these communities for the PCAP. From urban to suburban and rural areas, the proposed programs provide unique opportunities for communities to implement projects that are scaled appropriately while building municipal capacity. Succinctly stated, CIRDA’s proposal provides a unique opportunity to align smaller communities in Central Indiana with a regional vision for transformation that promises significant ecological and economic improvements, for the benefit of residents living in the 559 Justice 40-identified LIDAC tracts in the region and across CIRDA’s 25 member communities throughout the MSA.

*A feasible yet impactful approach, from the state capital county*

It is only logical that Central Indiana be the driving force for advancing climate action in the state. The MSA is home to the state’s most diverse population, and leads the state with double the population growth of the rest of Indiana over the last decade, and twice the rate of growth of any other region in Indiana. The 11-county MSA added 17,807 residents last year, accounting for 60% of Indiana’s net growth in 2023. The Indy metro area is home to 2.14 million people, which represents 31% of the state’s population; it ranks as the nation’s 34th-largest metro area out of 387. As such, it is critically important for CIRDA to invest in sustainable infrastructure that makes the MSA’s communities more livable. Through environmental analysis and stakeholder engagement, CIRDA’s three proposed measures respond to critical needs, elevate stakeholder priorities, and advance health, growth and sustainability.

As the data in the PCAP show, these chosen projects have maximal feasibility in a state like Indiana. CIRDA’s strategists, together with community residents and professional consultants, have determined that the above programs are the best way to leverage buy-in and momentum across the region’s diverse communities for additional investments over time in approaches designed to reduce GHG emissions. As a result of the unanimous support of CIRDA’s member municipalities, CIRDA can implement the proposed improvements as described, operate these programs beyond the EPA’s initial contribution, and leverage that contribution to inspire action and align policymakers around GHG emissions reductions.

**Section 2: Impact of GHG Reduction Measures**

CIRDA’s approach to GHG emissions reduction spans multiple sectors: energy and buildings, transportation, industry, open space/land management, agriculture, and waste management.

2a & 2b: Magnitude of GHG Reductions from 2025 through 2030, and from 2025 through 2050

CIRDA's GHG reduction measures are designed to significantly impact the sectors with the greatest emissions, as identified in the region's GHG inventory. The measures include the following:

*Table 3: GHG Reduction Measures & Cumulative Emissions Reductions*

| **GHG Reduction Measure** | **Cumulative Emissions Saved**  **2025-2030 and 2025-2050** | **Pilot Projects** |
| --- | --- | --- |
| CIRDA Regional Building & Asset Modernization Program | 2025-2030: 338,246 MT CO2e  2025-2050: 2,654,504 MT CO2e | City of Indianapolis Solar Upgrades: Targets 25% municipal energy transition to renewables by 2028, saving 6,185 MT CO2e by 2030 and 21,434 MT CO2e by 2050.  McCordsville Town Hall Energy Efficiency Updates: Upgrades HVAC systems for better efficiency, contributing 48 MT CO2e by 2030 and 167 MT CO2e by 2050 in savings.  Energy Insights Program: Expands to drive actionable energy-saving insights, aiming for 71,110 MT CO2e by 2030 and 132,598 MT CO2e by 2050 in savings.  Rolls Royce HVAC Optimization and Submetering: Implements energy optimizations, saving 3,806 MT CO2e by 2030 and 16,027 MT CO2e by 2050.  Rolls Royce PV Solar: Installs a large-scale solar system to support zero emissions goals, saving 41,264 MT CO2e by 2030 and 118,902 MT CO2e by 2050.  Crispus Attucks High School Energy Efficiency Renovations: Partners for energy efficiency upgrades, saving 180 MT CO2e by 2030 and 704 MT CO2e by 2050.  Indianapolis Art Center: Enhances energy efficiency, potentially integrating solar PV systems, saving 29 MT CO2e by 2030 and 144 MT CO2e by 2050. |
| CIRDA Regional Open Space Revitalization & Connectivity Program | 2025-2030: 89,056 MT CO2e  2025-2050: 444,147 MT CO2e | City of Indianapolis Brownfield Julietta Landfill: Converts a former landfill into a community solar facility, aiming for 64,666 MT CO2e by 2030 and 186,337 MT CO2e by 2050 in savings [Project Status Letter is completed with the Indiana Department of Environmental Management, as is a site concept plan]  Nickel Plate Pedestrian Bridge: Enhances connectivity, saving 55 MT CO2e by 2030 and 280 MT CO2e by 2050.  Grassy Creek Trail: Develops a greenway, saving 516 MT CO2e by 2030 and 2,817 MT CO2e by 2050.  Conner Prairie Reforestation: Reforests areas, aiming for 840 MT CO2e by 2030 and 4,200 MT CO2e by 2050 in savings.  Conner Prairie Wetland Enhancement: Installs wetlands, saving 108 MT CO2e by 2030 and 542 MT CO2e by 2050. |
| Indianapolis Area Renewable Energy & Waste Reduction Operation | 2025-2030: 25,440 MT CO2e  2025-2050: 127,199  MT CO2e | N/A |

As shown in *Table 3*, the sum total of GHG reductions resulting from all measures proposed by CIRDA is **452,742 MT CO2e** from 2025-2030 and **3,225,850 MT CO2e** from 2025-2050. These GHG reductions will result in enduring reductions in cumulative GHG emissions, and they demonstrate a comprehensive approach to mitigating environmental impacts, as informed by the intensive strategic planning and community engagement that led to the selection of these measures in the PCAP.   
  
2c: Cost Effectiveness of GHG Reductions

The PCAP for the Central Indiana region meticulously details the cost-effectiveness of the proposed GHG reduction measures. By dividing the requested CPRG funding by the quantified GHG emission reductions for the period 2025-2030, a favorable cost-effectiveness ratio is demonstrated.

*Cost effectiveness of GHG reductions* ***$1,095.76 per MT CO2e*** *= (Requested CPRG funding -* ***$496,094,580****) / (Sum of Quantified GHG reductions from CPRG funding from 2025-2030 -* ***452,742 MT CO2e****)*

This financial analysis highlights the maximization of environmental benefits per dollar granted. Several factors could influence the cost-effectiveness calculations of GHG reduction measures, potentially affecting the overall assessment and outcomes of these initiatives, including:

* *Technological Advancements and Cost Dynamics:* As renewable energy and energy efficiency technologies mature and scale, their costs typically decrease, a phenomenon observed with solar PV and wind energy technologies. Such changes may enhance the cost-effectiveness of GHG reduction measures beyond initial projections, offering more significant savings and environmental benefits per dollar spent.
* *Regulatory and Policy Changes:* New regulations requiring stricter emissions standards or offering enhanced incentives for renewable energy could improve the financial viability of proposed measures. Conversely, the phasing out of subsidies or changes in tax policies could increase costs of GHG reduction initiatives.
* *Market Fluctuations and Resource Availability:* Fluctuations in the prices of raw materials and the availability of critical components for renewable energy systems can impact efficacy. For example, a surge in demand for solar panels or batteries could lead to temporary price increases, impacting the cost estimates of solar projects.
* *Community Engagement and Behavioral Changes:* The degree of community buy-in and the effectiveness of outreach and education efforts toward, for example, increased use of transit or adoption of energy-efficient appliances, can affect the success GHG reduction measures.
* *Infrastructure and Integration Challenges:* The integration of renewable energy sources into existing energy infrastructure and the need for upgrades, such as EV charging stations or solar arrays, can affect cost calculations, and thus, the overall impact of GHG reduction measures.

In addition to the above considerations, several factors can significantly *enhance* the cost-effectiveness of the proposed measures, including the leveraging of existing infrastructure, the potential for scaling up successful projects, and the synergistic benefits arising from the intersection of various sectoral initiatives. The dynamic nature of sector economics, particularly in the energy and transportation sectors, coupled with the expected decrease in technology costs over time, further bolsters the economic case for the proposed GHG reduction strategies. Additionally, the anticipated benefits of emissions reductions encompass improved public health, enhanced air quality, and increased economic opportunities for local communities. These qualitative factors not only contribute to the overall cost-effectiveness of CIRDA’s proposed initiatives but also ensure long-term sustainability and resilience, marking a significant step forward in the region's journey towards a greener, more sustainable future.

2d: Documentation of GHG Reduction Assumptions

ERM conducted a comprehensive, thorough, reasonable, and quality GHG emissions reduction analysis for each of CIRDA’s proposed measures. For the Regional Building and Asset Modernization and Regional Open Space and Revitalization Program, GHG emissions reductions were estimated for each of the programs’ project types (11 and five types, respectively) supported by the program and summed for each program total. There are uncertainties around the actual projects that will be implemented through the revolving funds; therefore, the split of funds by project type was informed by factors such as the known pilot projects and example project costs, difficulty and practicality of implementation, and popularity. The total funding requested for the first program is $275 million, including $33.6 million for administration; the remaining $241.4 million is assumed to be available for emissions reducing projects. The total funding requested for the second program is $199 million, including $25 million for administration. The remaining $174 million is assumed to be available for emissions reducing projects.

To estimate program-wide impacts, the pilot projects were assumed to be implemented with resulting GHG emissions reductions contributing to program total. Then average costs and reductions from pilots of the same project type were used to inform program-wide reductions, up to the available funds. The average cost was used to determine a count of more projects that could be implemented for that project type given remaining available funds. The count was then multiplied by average annual GHG emissions reductions to estimate the benefits. It was assumed that 30% of remaining funds were disbursed for Tranche 2, with new projects online by 2027, and all remaining funds disbursed for Tranche 3, with all projects online by 2029 for each of the two programs. The estimated cost-effectiveness (in dollar per MT CO2e reduced) listed in the grant application for each measure was calculated by dividing the total funds requested by the cumulative GHG emissions reduced.

For the Indianapolis Area Renewable Energy and Waste Reduction Operation, there were uncertainties around the anticipated digester location, the amount of animal food waste collected, and the digester RNG production potential. Therefore, for the GHG emissions reduction analysis, estimates for two different farm options were calculated and then averaged. There were also uncertainties around the location of participating grocery stores and restaurants and the amount of food waste collected in these locations, so the analysis conservatively assumed the minimum amount of food waste collected will be the amount produced from IMS events. The analysis accounted for emissions reductions from RNG production and avoided fertilizer use, as well as emissions sources from waste transportation and reduced composting. Data on the potential energy consumption of the digester itself was not available, therefore, GHG emissions were not estimated for this. Further, emissions from construction were assumed to be insignificant and were not included.

ERM utilized a variety of resources to conduct the analysis, including information from the Center for Equity and Energy behavior, EPA, the U.S. Department of Energy, the U.S. Department of Transportation, the U.S. Energy Information Administration, and others. For more details, see the *Technical Appendix*.

**Section 3: Environmental Results – Outputs, Outcomes, and Performance Measures**

3a. Expected Outputs and Outcomes

After extensive stakeholder outreach, CIRDA identified expected outputs and outcomes that advance equity and public health, in the short and long term.

*Table 4: Expected outputs and outcomes from CIRDA’s GHG reduction measures*

| **GHG Measure** | **Outputs** | **Outcomes** |
| --- | --- | --- |
| Regional Building & Asset Modernization Program | -$ total funds uptaken by eligible applicants -% of total funds distributed in LIDACs  -# eligible applicants engaged  -# project submissions  -# energy efficiency upgrades provided  -# PV solar installations  -# EV charging structures installed in line with INDOT State EV Network Plan  -# people hired to support implementation | Cumulative emissions saved 2025-2030 (MT CO2e): 339,232  Cumulative emissions saved 2025-2050 (MT CO2e): 2,669,003  -# reduction in energy consumption (annual, by 2030 and by 2050)  -% reduction in electric grid load (annual, by 2030 and by 2050)  -# total vehicle travelers reduced (annual, by 2030 and by 2050)  -# total energy produced by solar installation and consumed by buildings or communities (annual, by 2030 and by 2050)  -# quality jobs created (annual, by 2030 and by 2050)  -# LIDAC residents placed in quality jobs (annual, by 2030 and by 2050)  -$ invested in local / regional economy (annual, by 2030 and by 2050) |
| Open Space Revitalization & Connectivity Program | -$ total funds uptaken by eligible applicants  -% of total funds distributed in LIDACs  -# eligible applicants engaged  -# project submissions  -Acres useable green/open space created  -# properties or acres developed for renewable energy  -Acres wetlands restored or created  -# people hired to support implementation | -GHG emissions reduction (MT CO2e): 87,166 from 2025-2030  -GHG emissions reduction (MT CO2e): 442,257 from 2025-2050  -# vehicle travelers converted to additional modes (annual, by 2030 and by 2050)  -# residents connected to trail or alternative modes (annual, by 2030 and by 2050)  -# quality jobs created (annual, by 2030 and by 2050)  -# LIDAC residents placed in quality jobs (annual, by 2030 and by 2050)  -$ invested in local / regional economy (annual, by 2030 and by 2050)  -CO2 sequestration rate of wetlands (by 2030 and 2050)  -Watershed health, as measured by U.S. Forest Service’s 6-Step Watershed Condition Framework (by 2030 and 2050)  -Soil erosion mitigation effectiveness, as measured by QNSPECT, a tool developed by NOAA (by 2030 and 2050)  -% increase in urban canopy across region (by 2030 and 2050)  -% survival of urban forestry projects and associated trees (by 2030 and 2050) |
| Indpls Area Renewable Energy & Waste Reduction Operation | -Food waste diversion (MT, lbs)  -# people hired to support implementation | -GHG emissions reduction (MT CO2e): 25,440 from 2025-2030  -GHG emissions reduction (MT CO2e): 127,199 from 2025-2050  -# total energy produced (annual, by 2030 and by 2050)  -# total reduction in methane (annual, by 2030 and by 2050)  -# quality jobs created (annual, by 2030 and by 2050)  -# LIDAC residents placed in quality jobs (annual, by 2030 and by 2050)  -$ invested in local / regional economy (annual, by 2030 and by 2050)  -Improved air quality in LIDACs (by 2030 and 2050), as measured by respiratory related health outcomes  -Improved public health in LIDACs (by 2030 and 2050), as measured by EPA’s Air Quality Index (AQI)  -200+ tons of food waste diverted from landfills annually |

From September through October 2024, CIRDA will work with all cooperating entities to establish clear program performance targets for each of the above output and outcome metrics and will additionally collaborate with the EPA to ensure all targets are approved before continuing with implementation.

3b. Performance Measures and Plan

To track, measure, and report ongoing progress toward achieving the expected outputs and outcomes for each of its GHG reduction measures, as listed in *Table 4,* CIRDA will employ:

* *Baseline Data Collection:* tracking initial values for all the performance measures described above, including baseline GHG emissions, CAP and HAP levels, and other relevant metrics.
* *Continuous Monitoring and Data Analysis:* engaging a consultant to ensure access to state-of-the-art environmental monitoring equipment as well as qualified environmental scientists who are experts in data collection and analysis, as shown in *Section 7*. This team will collect and analyze data regularly and report this data, along with any relevant trends, to CIRDA.
* *EPA Reporting:* As required by the grant guidelines, preparing comprehensive reports, detailing progress made towards achieving the expected outputs and outcomes for each GHG reduction measure. These reports will include a thorough explanation of the methodologies utilized to quantify and disclose the actual GHG emission reductions and resulting CAP and HAP changes, as described in ERM’s 3/25/24 memo to CIRDA, included in the *Letters of Commitment (ERM\_LOC\_CIRDA.pdf)*. Methodologies used to examine and quantify the other performance measures will also be included, ensuring transparency and adherence to best practices.
* *Stakeholder Engagement and Reporting:* providing quarterly updates on the results of its programs to the communities it serves, at CIRDA board meetings and via a public dashboard.
* *Adaptive Management:* collecting data, coupled with feedback from community members, to continually refine and adapt CIRDA’s project activities in order to ensure the timely and complete achievement of its expected outputs and outcomes. Corrective actions will be implemented as necessary based on the insights gained from data analysis and stakeholder input.

This thorough plan ensures that CIRDA will deliver on its commitment to achieving GHG emissions reductions through investments made across multiple key sectors in Central Indiana.

3c. Authorities, Implementation Timeline, and Milestones

CIRDA has worked closely with its member communities to develop a detailed implementation plan for its three priority GHG reduction measures. *Tables 5, 6, and 7* below show the parties responsible for implementing each measure; their implementation authorities; implementation tasks, milestones, and timelines; other entities whose participation is necessary for GHG reduction measure implementation; and roles and responsibilities for all parties who will engage in implementing the proposed measures.

*Table 5: CIRDA Regional Building and Asset Modernization Program Implementation Details*

| **Responsible Parties:** | CIRDA |
| --- | --- |
| **Implementation Authority:** | CIRDA has the authority to implement; no other actions necessary. |
| **Implementation Tasks and Milestones:** | Q3 2024-Q4 2024: Program preparation; CIRDA will begin finalizing any outstanding program terms and identifying contracts with personnel and consultants to administer each program.   * July 2024: Notice of Funding * July 2024 - EO August 2024: Contractor Procurement * August 2024 - September 2024: Finalize Outstanding Program Terms * September 2024 - October 2024: Solidify Program Performance Targets + Finalize Program Submission Process   Q4 2024-Q4 2026: Pilot projects funding and implementation; submitted pilot projects must be initiated by Q2 of 2025 (assuming funding awarded by end of year [EOY] 2024).  Q3 2025-Q4 2026: Tranche 2 funding and distribution; following initiation of pilot projects, program will begin efforts around Tranche 2 funding and associated projects.  Q1 2027-Q3 2028: Tranche 3 funding and distribution; following Tranche 2 project commencement, both programs will initiate a Tranche 3 funding of projects; CIRDA would target EOY 2028 to have all funding distributed to projects throughout the region. |
| **Other Cooperating Entities:** | City of Indianapolis, Town of McCordsville, Energy Insights Program, Rolls Royce, Crispus Attucks High School / Indianapolis Public Schools District, and Indianapolis Art Center for initial pilot projects. Other public, nonprofit, and private entities to be determined through a rigorous application process for future pilot projects |
| **Roles and Responsibilities for each party:** | All cooperating entities are the implementers of pilot projects. CIRDA will oversee and report on all projects. Contractors, once identified, will provide external evaluation, grant compliance, technical assistance, and program administration assistance services as described in the *Budget Narrative*. |

*Table 6: CIRDA Regional Open Space Revitalization and Connectivity Program Implementation Details*

| **Responsible Parties:** | CIRDA |
| --- | --- |
| **Implementation Authority:** | CIRDA has the authority to implement; no other actions necessary. |
| **Implementation Tasks and Milestones:** | Q3 2024-Q4 2024: Program preparation; CIRDA will begin finalizing any outstanding program terms and identifying contracts with personnel and consultants to administer each program.   * July 2024: Notice of Funding * July 2024 - EO August 2024: Contractor Procurement * August 2024 - September 2024: Finalize Outstanding Program Terms * September 2024 - October 2024: Solidify Program Performance Targets + Finalize Program Submission Process   Q4 2024-Q4 2026: Pilot projects funding and implementation; submitted pilot projects must be initiated by Q2 of 2025 (assuming funding awarded by end of year [EOY] 2024).  Q3 2025-Q4 2026: Tranche 2 funding and distribution; following initiation of pilot projects, program will begin efforts around Tranche 2 funding and associated projects.  Q1 2027-Q3 2028: Tranche 3 funding and distribution; following Tranche 2 project commencement, both programs will initiate a Tranche 3 funding of projects; CIRDA would target EOY 2028 to have all funding distributed to projects throughout the region. |
| **Other Cooperating Entities:** | City of Indianapolis and Conner Prairie for initial pilot projects.  Other public, nonprofit, and private entities to be determined through a rigorous application process for future pilot projects |
| **Roles and Responsibilities for each party:** | All cooperating entities are the implementers of pilot projects. CIRDA will oversee and report on all projects. Contractors, once identified, will provide external evaluation, grant compliance, technical assistance, and program administration assistance services as described in the *Budget Narrative*. |

*Table 7: Indianapolis Area Renewable Energy and Waste Reduction Operation Implementation Details*

| **Responsible Parties:** | CIRDA |
| --- | --- |
| **Implementation Authority:** | CIRDA has the authority to implement, upon completion of the following  Milestones: 1) Approval from IDEM (Indiana Department of Environmental Management) Office of Land Quality Satellite Manure Storage Structures; and 2) Permit from IDEM. |
| **Implementation Tasks and Milestones:** | Q3 2024-Q4 2024: Program preparation; CIRDA will begin finalizing any outstanding program terms and identifying contracts with personnel and consultants to administer each program.   * July 2024: Notice of Funding * July 2024 - EO August 2024: Contractor Procurement * August 2024 - September 2024: Finalize Outstanding Program Terms * September 2024 - October 2024: Solidify Program Performance Targets + Finalize Program Submission Process   2025: Grant consolidation, feedstock procurement and RFP for digester.  2026: Engineering, permitting and procurement  2027: Construction and buildout  2028: Startup and interconnection - at this point, the farm will be completely operational, accepting food waste, animal feedstock, and producing renewable energy.  2029: Monitoring, validation and initial energy credit generation |
| **Other Cooperating Entities:** | Indianapolis Motor Speedway, American Dairy Association, and Newtrient will collaborate with CIRDA to implement this program. |
| **Roles and Responsibilities for each party:** | All cooperating entities are the implementers of the project. CIRDA will oversee and report on all projects. A contractor, once identified, will provide external evaluation services as described in the *Budget Narrative*. |

CIRDA plans to contract with a qualified technical assistance provider to assist public, nonprofit, and private entities in Central Indiana in navigating all aspects of project implementation. This consultant will engage municipalities to ensure there is a high uptake rate of the dollars available through the proposed programs and will provide professional technical assistance to ensure that anticipated outputs and outcomes are achieved while complying with all mandatory tracking, analysis, and reporting procedures. Currently, CIRDA is preparing to meet with potential contractors and to launch its proposed measures according to the timelines listed above. CIRDA is also collaborating with regional partners, including the Indiana Department of Environmental Management, which is submitting its own application, to ensure all partners are working together cohesively to realize the regional goals identified in all PCAPs prepared for Central Indiana geographies without duplication.

**Section 4: Low-Income and Disadvantaged Communities**

4a: Community Benefits

Central Indiana is home to the greatest number of LIDACs within the state, and CIRDA’s measures are strategically designed to deliver multi-faceted, transformative benefits to those living in these tracts. These measures achieve substantial reductions in GHG emissions while transcending environmental impacts to significantly enhance the overall quality of life for Central Indiana’s many LIDAC residents.

*Direct and Indirect Benefits*

The direct benefits of the proposed programs are immediate, tangible, and focused on creating a healthier living environment in LIDACs while generating high-quality jobs. To illustrate CIRDA’s comprehensive approach to building and asset modernization, with a particular focus on assets like Crispus Attucks High School (a historically Black public school), municipal government buildings, and regionally-significant manufacturing sites will transform facilities into modern, energy-efficient environments for learning, service and production. Additionally, the significant energy savings achieved through these modernization efforts will reduce operational costs, allowing for the reinvestment of resources into educational programs, public services, and manufacturing advances that meet the needs of LIDACs while improving air quality, health, and economic development.

Furthermore, the CIRDA will breathe new life into degraded lands, transforming them into carbon-absorbing green spaces and improving the urban forest canopy, thus mitigating the urban heat island effect, a major concern for densely populated LIDACs. By increasing tree coverage and restoring natural landscapes, CIRDA can create cooler, more livable environments that not only contribute to better air and water quality but also bolster community pride, morale, and cohesion. Improved green spaces and connectivity projects, such as the Nickel Plate Pedestrian Bridge and Grassy Creek Trail, will also facilitate the development of safe and accessible walking and biking routes, encouraging health lifestyles and reducing reliance on motor vehicles.

CIRDA’s third measure directly tackles the issue of inefficient food and animal waste disposal. By decreasing the amount of organic waste sent to landfills, this project reduces GHG emissions, decreases the strain on limited landfill capacity, and harnesses valuable materials for renewable energy production. For residents in urban Marion County, these measures translate into cleaner air and waterways, reduced odors, and fewer health risks associated with poor waste management practices.

The benefits of these programs thus have far-reaching implications for the overall well-being and upward mobility of LIDAC residents. A summary of these direct and indirect benefits is included in *Table 8* below:

*Table 8: GHG Reduction Measures and their Benefits and Disbenefits*

| **GHG Reduction Measure** | **Direct Benefits** | **Indirect Benefits** | **Potential Disbenefits** |
| --- | --- | --- | --- |
| CIRDA Regional Building & Asset Modernization Program | • 1,478 bikes and 22 hybrid busses added  • 464 solar job-years added  • Improved building comfort | • Pounds reduced: 227,740 NOx, 17,360 PM2.5, 17,220 PM10, 12,510 VOC, 55 Ozone, 1,370 SO2, 37,660 CO and 120 NH3  • $2,018,533 - $4,551,935 in avoided health harms  • Improved economic development | • Noise due to construction  • Construction disrupting building occupants leading to increased traffic |
| CIRDA Regional Open Space Revitalization & Connectivity Program | • 22.8 miles of trail created  • 3,475 acres green space improved  • 3,517 acres canopy cover created  • 299 solar job-years added | • Pounds reduced: 15,787 PM2.5, 10 VOC, 234,978 Ozone, 12,879 SO2 and 40 NH3  • 3,295 metric tons nitrogen removed from water  • $2,310,085 - $5,209,266 in avoided health harms  • Improved economic development | • Noise due to construction  • Increased traffic during construction  • Disruption to local habitats  • Traffic disruption during trail and bridge development  • Potential for soil pollutants to transfer into air and water systems |
| Indianapolis Area Renewable Energy & Waste Reduction Operation | • 200 tons reduced food waste | • Pounds reduced: 2,006 PM2.5, 2,006 PM10, 1,451 VOC, 158 SO2, 26,380 NOx and 4,386 CO  • 12 metric tons nitrogen removed from water  • 41 metric tons reduced nitrogen fertilizer application  • $228,638 - $515,601 in avoided health harms | • Waste moved to areas in and around LIDAC |

CIRDA will mitigate all impacts to the built and natural environments that occur as a result of implementation, including noise, traffic, natural habitat, pollutant, and waste transfer impacts. These impacts will be mitigated following all recommendations that arise through consultation with local governmental agencies, the Indiana Department of Transportation, the Indiana Department of Natural Resources, IDEM, EPA Region 5, the U.S. Fish and Wildlife Service, the Indiana Geological and Water Survey, historic preservation groups, property owners, LIDAC residents, and others as appropriate.

Over one-third of the 1,446 census tracts in the MSA are considered to be LIDACs according to EPA’s LIDAC definition, which identifies LIDAC as any community that meets at least one of the following characteristics: is identified as disadvantaged by CEJST; is at or above the 90th percentile for any of EJScreen’s Supplemental Indexes when compared to the nation or state; or sits within Tribal lands as included in EJScreen. The 559 identified LIDAC census tracts can be seen in the *Other Attachments*.

LIDAC residents in Central Indiana are exceptionally vulnerable to several climate risks and impacts compared to residents across the rest of the region. Over the next 30 years, climate change is projected to increase average temperatures in Indiana about 5 to 6 degrees Fahrenheit. The frequency, duration, and intensity of heat waves are expected to rise, affecting low-income, communities of color, residents who lack air conditioning or are experiencing homelessness, and outdoor workers. In the Midwest, low-income individuals are ten percent more likely to live in areas with the highest projected labor hour losses for weather-exposed workers due to extreme temperatures. Additionally, minorities and individuals without a high school diploma in the Midwest are eight to ten percent more likely to currently live in areas with the highest projected inland flooding damage.

Within Central Indiana, there are several tracts in EPA’s CJEST where the risk of flooding is above the 70th percentile across the state. Regions of concern include multiple census tracts in Marion, Morgan, Shelby, and Madison Counties. Additionally, several LIDAC tracts within Marion County are subject to air pollution above the 80th national percentile, particularly PM 2.5. Measures to mitigate GHG emissions can lead to reductions in criteria pollution including PM 2.5, resulting in improvements to public health.

*Commitment to Equitable Economic and Workforce Development*

The proposed programs reduce GHG emissions and culminate in equitable development, job creation, and improved health outcomes across Central Indiana. The projects are designed to be inclusive, allowing all residents to benefit from the advancements while focusing on those who have been traditionally underserved or marginalized.

As part of its commitment to equitable economic and workforce development, CIRDA proposes an ambitious initiative to coordinate the actions of an ecosystem of partners and service providers, all of whom have applied for, and in some cases received, significant federal funds for initiatives in Central Indiana. Each of the proposals submitted include workforce development components designed to support skills development and economic mobility in the MSA’s LIDACs. In addition to launching two training programs, CIRDA seeks to meaningfully leverage these existing initiatives to support residents.

At the core of this endeavor is a strategic partnership with EmployIndy. EmployIndy is the workforce development board and intermediary serving Marion County (Region 12) and co-leading in the regional workforce area (Region 5) Indianapolis MSA, leveraging its robust ecosystem of 180+ stakeholder partners (economic development, CBOs, service providers, training providers), 950+ employer partners, and operating an American Job Center hosting 35K+ job seeker visits per year. With EmployIndy as a convener and driver of the region’s aligned workforce development ecosystem, CIRDA will create a scalable framework for workforce development that meets the current and future needs of the region.

This partnership will address systemic barriers to employment and advance equitable job opportunities, promoting inclusive economic growth and shared prosperity for all residents of the region. To date, the Indiana Departments of Workforce Development, Natural Resources, and Environmental Management and the Indiana Housing and Community Development Authority, Indiana Community Action Association, Ivy Tech Community College, and Martin University have all requested federal funds, in part to implement workforce development programs. As shown in the *Letters of Commitment* in the *Other Attachments*, CIRDA will work with EmployIndy, which will convene partners to:

* *Eliminate Racial and Economic Disparities:* Targeted interventions will ensure equitable access to employment opportunities, addressing long-standing inequities in the labor market.
* *Address Critical Barriers to Employment:* CIRDA will work to align regional program and service delivery to comprehensively improve access to quality education, workforce training programs, and supportive services such as affordable childcare, reliable transportation, and mentorship.
* *Create Inclusive Training Opportunities:* In collaboration with EmployIndy, CIRDA will ensure that workers in the MSA have access to training opportunities that result in high-demand credentials and high-quality jobs paying at least the annual median wage in the MSA. These opportunities will include wraparound services such as career coaching, training stipends, and job placement to support workers in achieving their goals. CIRDA will launch two training programs focused on Energy Efficiency and Renewable Energy career pathways.
* *Develop Aligned Approaches:* Because many organizations and agencies are launching new workforce development programming in response to federal investment(s) in the region, CIRDA will work with its partners to develop shared approaches to service delivery through the creation of the new Clean Energy Infrastructure Academy (CEIA). The academy will feature common intake, programming, and placement processes and will ensure workers maintain employment and grow their careers. Many agencies have applied for support for careers that are critical in building resilient infrastructure in the MSA, and CIRDA will work with those groups to leverage the existing training pipelines, fill gaps, and continuously assess evolving needs.

A second partner in workforce development is Egis, an infrastructure consulting firm. Their Central Indiana office (see attached letter) has pledged to work with vocational training programs to align them with positions that need to be filled to execute CIRDA’s project portfolio. Egis has deep experience leveraging federally funded projects to create jobs to be filled with members of Justice 40 communities.

*Assessing, Quantifying, and Reporting Benefits and Avoided Disbenefits*

Recognizing the importance of transparency and accountability, CIRDA will implement a comprehensive framework for the ongoing assessment, quantification, and reporting of both benefits and avoided disbenefits to communities affected by the proposed programs. This framework will focus on environmental and health impacts, including reductions in Criteria Air Pollutants (CAP) and Hazardous Air Pollutants (HAP). The methodology for this strategy includes these components:

* *Baseline Data Collection:* CIRDA will establish initial environmental, health and QOL benchmarks in the targeted communities by benchmarking CAP and HAP levels and other relevant indicators.
* *Continuous Monitoring and Data Analysis:* Utilizing state-of-the-art environmental monitoring equipment and conducting regular community health surveys, CIRDA will gather data, to be carefully analyzed by an evaluation services provider to be contracted who will identify trends, improvements, or regressions in pollutant levels and health and quality of life outcomes within the affected communities.
* *Stakeholder Engagement and Reporting:* CIRDA will hold regular meetings with community stakeholders, project partners, and relevant authorities to discuss the findings from the data analysis. To promote transparency, CIRDA will develop a dynamic, user-friendly dashboard accessible to the public and the media, displaying real-time data on pollutant levels, health indicators, quality of life metrics, and other relevant measures.
* *Benefit and Disbenefit Tracking:* CIRDA will clearly define and document the anticipated benefits of its programs, such as emission reductions, improvements in air quality, and enhancements in community health and quality of life. Simultaneously, CIRDA will establish placeholders for potential disbenefits, such as temporary increases in local traffic or noise levels during construction phases. A robust system will be implemented to track these metrics against the progress of project activities.
* *EPA Reporting:* As required by the grant guidelines, CIRDA will prepare comprehensive reports for the EPA, detailing the analysis of benefits and avoided disbenefits. These reports will include a thorough explanation of the methodologies employed for assessment and quantification.
* *Adaptive Management:* The data collected, coupled with community member feedback, will be used to refine and adapt our project activities. CIRDA will maximize the benefits delivered to LIDACs while minimizing potential disbenefits. Corrective actions will be implemented as necessary based on the results of data analysis and stakeholder input.

This plan ensures that CIRDA will deliver tangible benefits while also identifying and mitigating any potential disbenefits. Through rigorous assessment, active stakeholder engagement, and adaptive management strategies, CIRDA will maintain transparency and accountability throughout the grant period, ensuring that its efforts are fully aligned with the needs and priorities of the LIDACs served.

4b: Community Engagement

CIRDA actively involved LIDACs in this proposal’s development starting with the planning process to develop the PCAP. Through its collaboration with the Indianapolis Metropolitan Planning Organization (IMPO), two multilingual public surveys and 17 community events were conducted. These efforts identified and addressed the specific needs, concerns, and priorities of LIDAC residents, centering their perspectives in the PCAP's development. Detail are on PCAP (pages 64-79) in the *Other Attachments*.

*Ongoing Engagement Strategy*

Ensuring meaningful participation of LIDACs in GHG reduction measures includes the following elements:

* *Extend the Partnership with IMPO:* The IMPO will continue leading community outreach efforts, maximizing their expertise and established relationships in LIDACs through the grant’s lifespan.
* *Diverse Engagement Techniques:* To remove barriers and foster inclusive dialogues, CIRDA will host in-person meetings in LIDACs and virtual forums and publish user-friendly surveys, serving diverse linguistic, cultural, and geographic backgrounds (Hispanic, Burmese/Chin, etc.).
* *Community Advisory Boards:* CIRDA will establish volunteer advisory boards composed of community members, with a strong representation from LIDACs, which will guide project development and implementation, ensuring that decisions reflect the needs, preferences, and priorities of the communities they represent.
* *Transparent Communication:* To maintain transparency, foster trust, and centralize information, CIRDA will develop a public platform detailing engagement opportunities, project updates, and clear explanations of how community input is being incorporated into ongoing/future actions.
* *Responsive Action Plan:* CIRDA will implement a robust feedback mechanism to promptly address any concerns raised by the community while maximizing benefits.

**Section 5: Job Quality**

In alignment with Executive Order 14082: Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022, CIRDA will support the creation of high-quality, family-sustaining jobs with the free and fair choice to join a union as part of its proposal for CPRG funding. To do so, CIRDA will utilize the following strategies when soliciting contractors, funding sub-awardees, facilitating equitable access to jobs, and interfacing with municipalities:

* *Contractors and Sub-awardees* In RFPs and subawards for work to be delivered for CPRG-funded activities, CIRDA will, via application points or other means: (a) Require clear commitments to paying at least the median area income for all workers where prevailing wage is not required by law, (b) Require the participation of XBE firms on project teams, (c) Encourage the use of Registered Apprentice labor, (d) Encourage defined goals to hire individuals from LIDACs, in alignment with applicable law, (e) Encourage health and safety plans in conjunction with workers, including anti-harassment training for workers and management, OSHA training to minimize workplace hazards, and extra health and safety training as needed, (f) Encourage the use of Project Labor Agreements or Community Workforce Agreements on construction projects where relevant, (g) Encourage partnerships with labor organizations and workers’ rights groups, and (h) Encourage high job quality and labor standards.
* *Equitable access to jobs*: To ensure equitable access to the jobs to be created, CIRDA will leverage its, the City of Indianapolis’ and EmployIndy’s relationships with stakeholder groups (the Fortune 500 companies, nonprofits, state agencies, and universities who participated in PCAP working groups) to engage applicants from diverse communities. CIRDA will also engage the IMPO, which performed stakeholder engagement and community outreach for the PCAP, to publicize available jobs via stakeholders and other avenues (congregations, Marion County Re-entry Coalition, Laundry & More [a weekly resource fair at a laundromat], the Senior Community Service Employment Program, etc.)
* *Municipalities*: CIRDA will partner with EmployIndy to educate municipal leaders and their staff about the creation of quality jobs, requiring that all municipalities benefiting from the proposed programs meet with EmployIndy to review the Good Jobs Principles, which include: discrimination-free recruitment and hiring of underserved populations in particular; quality benefits; DEIA practices in the workplace; freedom to join a union; safe working conditions; an employee-centered organizational culture; and skill-building. For more information, please see the *Letter of Commitment* provided from EmployIndy.

**Section 6: Programmatic Capability and Past Performance**

6a: Past Performance

Funded assistance agreements performed by CIRDA within the last three years include:

Agreement #1

| **Project Title** | White River Regional Opportunity Initiative (WR-ROI) |
| --- | --- |
| **Non-federal funding agency and assistance listing number** | Regional Economic Acceleration & Development Initiative (READI). READI was codified into Indiana law in 2021, as noted in Indiana Code: IC 5-28-41, and received ARPA funding. |
| **Brief description of the agreement** | CIRDA led a READI state agreement for the Central Indiana region, receiving $20,000,000 in December 2021 for the White River Regional Opportunity Initiative (ROI). The White River ROI leverages the region’s main body of water (and 2019 White River Vision Plan) to support regional population growth, talent attraction and retention, and smart economic development. |
| **Contact from organization that funded the assistance agreement** | Jim Rawlinson, Director of READI [[jrawlinson@iedc.in.gov](mailto:jrawlinson@iedc.in.gov) / 317.232.8800] |

Agreement #2

| **Project Title** | Climate Pollution Reduction Grants Program: Planning Grant |
| --- | --- |
| **Federal funding agency and assistance listing number** | EPA Grant Number (FAIN) 00E03473 Program Code 5D |
| **Brief description of the agreement** | CIRDA administered a $1 million EPA planning grant to complete a greenhouse gas inventory. |
| **Contact from organization that funded the assistance agreement** | Nora Suntken, Life Scientist [[Suntken.Nora@epa.gov](mailto:Suntken.Nora@epa.gov) / 312.353.3298]  Victor Schultz, Physical Scientist [[Schultz.Victor@epa.gov](mailto:Schultz.Victor@epa.gov)] |

*Successful completion and management of the agreements*

CIRDA’s READI agreement is in progress. As monitored by the Indiana Economic Development Corporation, all READI grantees made a commitment to achieving one or more of the following outcomes over the next five to ten years: 1) increased per capita income at a rate that meets or exceeds the national average; 2) increased share of population of prime working age; 3) increased rate of educational attainment; 4) increased property values statewide; and 5) improved health outcomes.

Through the READI grant, CIRDA has created a public-facing website with: 1) educational material about the White River’s ecology and water quality; 2) information about all current restoration projects; 3) spotlights on eco-tourism destinations in the region; and 4) a blog highlighting river-related recreational events and activities. This awareness campaign addresses the historical perception of the river not as a recreational, ecological or economic asset, but as a site of industrial and municipal pollution. CIRDA continues to publicly document project progress, from the reconstruction of Indianapolis’ wastewater tunnels to prevent combined sewer overflow into the river, to the development of or improvements to existing riverfront trails, parks, cultural venues, and housing.

With the EPA CPRG Planning Grant, CIRDA completed a greenhouse gas inventory and has completed and delivered the following Phase 1 Deliverables, all pursuant to and consistent with the requirements of the CPRG Program: 1) Priority Climate Action Plan (PCAP); 2) Climate Action Plan; and 3) Status Report.

Moreover, CIRDA’s member communities, anchored by the City of Indianapolis, have successfully administered more than $770 million in nine federal grants in the last two years. Administration of federal grants is notable, because CIRDA, as regional governmental entity, relies heavily on the expertise and oversight of its member municipalities and their hundreds of professional governmental workers.

6b: Reporting Requirements

Established in 2022 under [Indiana Code 36-7.7](https://iga.in.gov/legislative/laws/2022/ic/titles/036#36-7.7), CIRDA fosters collaboration and cooperation among municipalities in Central Indiana and empowers the region to speak with one voice on key issues.

With the robust financial foundation of its member communities, CIRDA demonstrates long-term sustainability in executing agreements and appropriately managing funds. Relevant to the READI and EPA agreements listed above, CIRDA has consistently submitted all required reports in a timely manner.

To add to CIRDA’s capacity to manage and administer any grant agreement made with the EPA, CIRDA will contract with a qualified grants management professional to ensure the agreement is carried out effectively. Moreover, CIRDA will draw from its members’ elected officials and staff who have extensive knowledge in federal grants management and will support CIRDA in properly managing this agreement.

6c: Staff Expertise

Composed of municipalities and led by the executives (mayors, town council presidents, or county commissioners) from 25 Central Indiana communities, CIRDA is a statutory entity established to align the public sector on key regional initiatives and drive economic development and grant opportunities within Central Indiana. CIRDA fosters collaboration among communities throughout the region to enhance quality of life and sustainability, boost support for local businesses and innovation, and ensure Central Indiana is an attractive place where all residents benefit from growing economic opportunity and equitable development. Monthly CIRDA board member meetings build consensus on key issues affecting the region’s growth, including opportunities to address climate change. CIRDA relies on the professional staff of member communities, who are well-versed in administering federal grants; CIRDA administered $21 million in federal funds during the last two years.

CIRDA’s team is comprised of skilled professionals with extensive experience and diverse backgrounds, enabling them to effectively and efficiently comply with federally funded assistance agreements. Specifically, Jennifer Messer, CIRDA’s Executive Director and chief Legal Counsel, is an economic development professional whose work for the City of Fishers has culminated in projects that generated 10,000 jobs and private investment of nearly $2.8 billion. As an attorney with almost two decades of municipal and governmental law and political experience, Messer is skilled at navigating the nexus between government and business and has extensive experience with public procurement using RFPs, RFQs, and public bidding procedures, as well as land use matters. Messer’s CIRDA position is funded by CIRDA’s member communities together with grant funds allocated to administrative work; her work on CPRG will be supplemented by the contract roles listed in the budget.

The multiple projects under the jurisdiction of the City of Indianapolis will be overseen by Morgan Mickelson, director of the Office of Sustainability. She leads the cross-sector implementation of Thrive Indianapolis, the city's first actionable sustainability and resilience plan. Her prior roles include climate advisor for the Natural Resources Defense Council’s American Cities Climate Challenge, and environmental analyst for a low-income housing project, where she benchmarked the results of energy efficiency projects for 340 multi-family properties nationwide. Aryn Shounce, senior policy advisor to the Mayor of Indianapolis, is also a part of the project team. Her experience includes public finance, budget creation and oversight, public-private partnership management, and contract management.

Bios or resumes for personnel overseeing or leading each of the pilot projects named in this proposal are attached. These include the aforementioned Messer, Mickelson and Schounce, as well as Town Manager Tim Gropp (Town of McCordsville), Foundation Vice President Jami Marsh (IU Health), architect Deb Kunce and facilities/operations director William Murphy (Indianapolis Public Schools), senior planner Annie Dixon (IMPO), and CEO Paul Mitchell and Managing Director Becca Gillespie (Energy Systems Network). The *Team Biographies* included in *Other Attachments* also reflect four shorter/aggregated sets of bios from teams of engineers, efficiency experts, and educators working on the Rolls Royce, Conner Prairie, Indianapolis Motor Speedway, and Indianapolis Art Center projects.

**Section 7: Budget**

7a: Budget Detail

The proposed project's total budget is designed to support the implementation of GHG reduction measures over a 5-year period. This budget encompasses staffing, equipment, supplies, travel, contractual services, and other expenditures to achieve effective project outcomes. CIRDA’s budget is organized by specific GHG reduction measures, each with allocated costs across various categories.

*Table 9: Budgeted costs for GHG reduction measures*

| **Budget Category** | **Costs for CIRDA Regional Building & Asset Modernization Program** | **Costs for CIRDA Open Space Revitalization & Connectivity Program** | **Costs for Indianapolis Area Renewable Energy & Waste Reduction Operation** |
| --- | --- | --- | --- |
| Personnel | Years 1-5: $0 | Years 1-5: $0 | Years 1-5: $0 |
| Fringe Benefits | Years 1-5: $0 | Years 1-5: $0 | Years 1-5: $0 |
| Travel | $328 per year for Years 1-5; Total: $1,640 | $328 per year for Years 1-5; Total: $1,640 | $328 per year for Years 1-5; Total: $1,640 |
| Equipment | Years 1-5: $0 | Years 1-5: $0 | Years 1-2: $0;  Year 3: $8,000,000;  Year 4: $4,000,000;  Year 5: $0;  Total: $12,000,000 |
| Supplies | Years 1-5: $0 | Years 1-5: $0 | Years 1-5: $0 |
| Contractual | Year 1: $36,442,937;  Year 2: $31,351,372;  Year 3: $26,745,807;  Year 4: $26,745,807;  Year 5: $350,000;  Total: $121,635,922 | Years 1-4: $15,850,000 per year Year 5: $350,000;  Total: $63,750,000 | Year 1: $210,000;  Year 2: $1,450,000;  Year 3: $2,270,000;  Year 4: $2,080,000;  Year 5: $1,644,500;  Total: $7,654,500 |
| Other | Year 1: $27,857,812;  Year 2: $45,778,349; Year 3: $25,484,415;  Year 4: $25,848,015;  Year 5: $3,382,000; Total: $128,350,592 | Year 1: $18,705,700;  Year 2: $30,552,240;  Year 3: $35,259,800;  Year 4: $30,831,200;  Year 5: $1,792,800;  Total: $117,141,740 | Other: $0 |
| Indirect Costs | Year 1: $6,430,108; Year 2: $7,713,005;  Year 3: $5,223,055;  Year 4: $5,259,415; Year 5: $373,233;  Total: $24,998,815 | Year 1: $3,455,603;  Year 2: $4,640,257;  Year 3: $5,111,013;  Year 4: $4,668,153;  Year 5: $214,313;  Total: $18,089,338 | Year 1: $61,533;  Year 2: $238,158;  Year 3: $1,270,208;  Year 4: $691,183;  Year 5: $207,670;  Total: $2,468,752 |
| **Total:** | **$274,986,970** | **$198,982,718** | **$22,124,892** |

More information is contained in the attached *Budget Spreadsheet* and *Budget Narrative*.

7b: Expenditure of Awarded Funds

The proposed project employs rigorous financial management practices to ensure that awarded funds are expended in a manner that is both timely and effective. Our approach includes:

* Regular financial monitoring and reporting mechanisms.
* An internal audit function to oversee fund allocation and utilization.
* Engagement with stakeholders to ensure budgetary transparency and accountability.

To ensure timely and efficient use of awarded funds, the CIRDA project will implement:

* *Monthly Budget Reviews:* Project managers and financial staff will review expenditures and ongoing commitments to ensure spending aligns with the approved budget.
* *Expenditure Tracking:* Expenses will be carefully tracked against anticipated cost distributions and workplan milestones to monitor budget performance.
* *Interim Audits:* Regular audits of financial records will be conducted to evaluate compliance and make any necessary adjustments.
* *Approval Procedures:* Well-defined approval processes and authorization controls will govern expenditures to maintain accountability.
* *Reporting Mechanisms:* Comprehensive financial reporting on expenditures, commitments, and budget status will be provided to EPA and partners at prescribed intervals.

These procedures will allow for proactive course-correcting if unavoidable circumstances impact the projected budget plan.

7c: Reasonableness of Costs

The CIRDA *Regional Building and Asset Modernization Program* costs are reasonable because:

* *Travel:* Costs are justified by the necessity for site assessments and partner engagements, crucial for the accurate execution of modernization projects across the region.
* *Contractual:* Costs include reasonable costs for consulting and engineering services to leverage external expertise, ensuring the program's success in modernizing regional infrastructure for energy efficiency. Other reasonable costs will include costs for technical expertise and administrative support to oversee public building retrofits and energy efficiency upgrades.
* *Other & Indirect Costs:* Costs reflect essential miscellaneous and overhead expenses that support the overall project administration and execution, including permits and licensing fees. They also include the cost of subawards to be made under the CIRDA Regional Building and Asset Modernization Program as well as to partners who will provide technical assistance with community engagement and workforce development activities.

The CIRDA *Regional Open Space Revitalization and Connectivity Program* costs are reasonable because:

* *Travel:* Costs are necessary for the inspection and monitoring of project sites across Central Indiana, ensuring effective implementation and stakeholder engagement.
* *Contractual:* Costs include engaging with contractors for specialized services such as wetlands remediation and urban afforestation, ensuring high-quality outcomes within reasonable cost parameters. Costs are reasonable for coordinating efforts to revitalize degraded lands and develop green spaces, requiring specialized project management and environmental expertise. Other reasonable costs will include costs for technical expertise and administrative support to oversee open space revitalization and connectivity improvements.
* *Other & Indirect Costs:* Costs include essential costs for community engagement and workforce development activities and administrative support, vital for the program's success in enhancing regional green spaces. They also include the cost of subawards to be made under the CIRDA Regional Open Space Revitalization and Connectivity Program.

The *Indianapolis Area Renewable Energy and Waste Reduction Operation* costs are reasonable because:

* *Travel:* Costs are necessary for coordinating with a wide array of stakeholders including restaurants, grocery stores, and dairy farms, essential for the logistic success of the project.
* *Equipment:* Equipment costs include anaerobic digester equipment and construction materials, vital for the implementation of this program.
* *Contractual*: Costs for engaging with experts in anaerobic digestion technologies and waste management practices, ensuring the project's technical viability and environmental compliance, are included. Additional costs for project management and administrative support are justified by the innovative nature of the project, requiring additional expertise to execute a food waste collection program for renewable natural gas production.
* *Other & Indirect Costs*: Costs encompass expenses related to community outreach and education on waste reduction, alongside workforce development activities and administrative expenses supporting project coordination and reporting requirements.

For each GHG reduction measure, the cost categories have been meticulously developed and justified based on a thorough understanding of the necessary activities to achieve emission reductions, the engagement of stakeholders, and the delivery of tangible benefits to the community, especially LIDACs. These cost considerations align with the prudent person principle, ensuring that expenditures are necessary, reasonable, and directly support the project's GHG reduction goals and activities.

*Specific considerations:*

* None of the measures have *Personnel, Fringe Benefit,* or *Supply* costs.
* Travel expenditures are reasonable estimates based on anticipated events and engagements vital to promoting the goals of the project.
* The bulk of funding is allocated to contractual costs and subawards to execute the core GHG reduction initiatives, including comprehensive energy assessments and installation of emission-reducing technologies and processes through incentives and direct funding support.
* Indirect costs are calculated per the de minimis rate to cover administrative expenses.

Each budgeted amount has been scrutinized to cut excessive expenditures and focus resources on achieving the highest project impacts. Thorough cost estimation procedures were followed, leveraging the combined expertise of CIRDA's personnel and partners. Detailed justifications tying costs to specific activities are provided in the supplemental budget documentation. Recognizing the collaborative nature of the CIRDA project, the proposed budget accounts for subawards and partnerships essential for comprehensive GHG reduction. Each partner's role and associated costs are clearly delineated to ensure accountability and alignment with project objectives.

The attached *Budget Spreadsheet* illustrates the allocation of costs across budget categories and calendar years. The attached *Budget Narrative* and itemized costs for the CIRDA project are designed to ensure strategic fund allocation, maximized impact, and compliance with EPA's financial guidelines.