

1. OVERALL PROJECT SUMMARY AND APPROACH

Vision: A Future Ready Neighborhood (FRN) is powered by clean energy, efficiently consumes energy, uses ecosystem services to strategically build resilience, and ensures professional development opportunities.

Mission: Starting with direct investment in Low-Income and Disadvantaged Communities (LIDAC) and neighborhoods through public and private partnerships, collaboratively work towards a regional goal of all Central Iowa neighborhoods achieving FRN status by 2035.

Sectors: Energy production, commercial & residential energy use, and natural & working lands.

Project Geography: All Central Iowa counties covered in the Central Iowa Priority Climate Action Plan (PCAP) – Dallas, Guthrie, Jasper, Madison, Polk, Story, and Warren.

Lead Applicant Agency: Government of Polk County, Iowa

Major Implementation Partners: This measure has been developed through and will be implemented as a partnership between:

- Polk County, Iowa
- Mid-Iowa Planning Alliance for Community Development (MIPA)
- Local governments
- Private and public utilities
- Regional and local education, workforce, and community-based organizations (CBOs).

Description of GHG Reduction Measures

Future Ready Neighborhoods (FRN) seeks to approach low-income residential climate pollution through this proposal holistically. The measures within FRN are at four scales: home, neighborhood, community, and region. By combining these scales with multi-beneficial pathways and outcomes, FRNs aim to reduce Central Iowa's emissions by up to 10% by the year 2050, if fully executed.

Implementation Strategies

- Expand upon existing energy audit and weatherization programs to increase low-income households served and provide additional resources to advance present and future electrification capacity upgrades in addition to current program offerings.
- Accelerate expansion of partnerships and programs with private entities, institutions of higher learning and other workforce organizations to recruit, train, certify, and retain prospective clean energy and sustainability professionals including private contractors, energy auditors and planners, and other skilled trades.
- Establish a regional forestry program to lead region-wide neighborhood assessments to prescribe and execute native tree and shrub plantings that will sequester carbon, expand neighborhood canopy coverage, and not obstruct current and future opportunities for clean energy production – starting in LIDAC neighborhoods.
- Partner on as much as 400 MW of utility, municipal, and community solar farms that direct energy credits to low-income persons to reduce the energy cost burden for LIDAC households, renter- or owner-occupied.

Determination of Priority Measures

Until the United States Environmental Protection Agency's (EPA) Climate Pollution Reduction Grant program, most of Central Iowa had not begun to address climate pollution or solutions in a systematic way. Various ad-hoc initiatives have sporadically been attempted, but nothing on the scale that is described in this workplan. CPRG Phase I and the Priority Climate Action Plan (PCAP), kickstarted that effort across a 7-county region. In doing so, Polk County, Iowa staff was met with expected resistance to change – but overall, found that most stakeholders, when asked for their opinion and ideas, understood that something needs to be done. However, the priority measures were unclear – at first.

Being that Iowa is an agricultural state, many of our rural communities looked to prioritize that sector. However, the timetable and impact did not align with CPRG, nor regional goals both urban and rural jurisdictions could get behind. Many of our urban cities looked to improve their municipal buildings and fleets, however, this did not align with a regional impact or ensure CPRG funding in Central Iowa would maximize LIDAC benefits from any CPRG-requested investment. With the sprawling nature of our region, some interest moved to electric vehicles – however, Iowa is behind in alternative fuel car registrations as compared to most of the United States¹ and there is already a significant amount of federally funded dollars available or could be allocated to accelerating EV adoption through grants at the Federal Highway Administration², Metropolitan Planning Organizations³, etc.. Therefore, transportation was also not the main event ticket due to other institutions and planning processes needing to take place, and with the intention to do so through the comprehensive climate action planning (CCAP) process. However, any residential electric vehicle investments that can be made as a side effect of this proposal, would be, and are, included.

Finally, once the PCAP greenhouse gas emissions inventory for the region was finalized, electricity production and residential consumption emerged as the priorities due to their proportional prominence.

If you ask the evening news, every household across the country is feeling the pinch of energy costs becoming burdens. To confirm whether or not the same is true in our region, the CPRG planning team, based at Polk County Public Works, briefly surveyed the public through “Sustainability Santa” who asked households what they would want him to bring during the 2023 holiday season. Second only to cleaner water, which our colleagues at Polk County Public Works and across Central Iowa are diligently working on, the community resoundingly wants lower energy bills. Runners-up in the survey were “more renewable energy in my community” and “solar panels on my roof.” And here Central Iowa's priorities were greatly supported by the public with Saint Nick's help.

With a proverbial motion on the table, the planning team did a landscape analysis of residential energy programs available across Central Iowa. Weatherization, appliance rebates, smart tech coupons, tree giveaways, and more were found to be available from both public and private programs in various forms across the seven counties. It seemed there was little to be done. However, the planning team saw there were cracks in this seemingly sound wall of assistance. When surveyed, weatherization agencies and programs in Central Iowa had cumulative wait lists of more than 10,000 homes, and the capacity to serve roughly 600 homes a year. That equates to a waiting list of more than 16 years. A child could be born today and begin to drive before their home might get access to the weatherization program their parents signed up for just before their birth.

¹ United States Department of Energy – Electric Vehicles Registrations by State (2022). <https://afdc.energy.gov/data/widgets/10962>

² United States Department of Transportation Federal Highway Administration (2024). <https://highways.dot.gov/newsroom/biden-harris-administration-announces-623-million-grants-continue-building-out-electric>

³ United States Department of Transportation: Carbon Reduction Program (2024). <https://www.transportation.gov/priorities/climate-and-sustainability/carbon-reduction-program>

Additionally, besides weatherization and Low-Income Heating and Energy Assistance programs (LIHEAP) no other programs are no cost to LIDAC consumers. As found with similar resilience efforts, such as the Rain Campaign, a cash upfront barrier loomed large to low-income households attaining equal energy efficiency, capacity, and technology options. When dollars and cents count, families don't have hundreds of either to pay up front and then wait for their return in 6-8 weeks when they're mailed back. These program defects are the region's opportunity to act through CPRG Phase II and solidify the first tenet of Future Ready Neighborhoods – move from weatherization to climatization by strengthening the capacity of weatherization programs already in existence and adding further actions available to households to include electric panel upgrades and the installation of infrastructure for the adoption of electrification in the home, garage, or on the roof. In this way, we ensure comfort at home and reduce energy consumption and costs. Furthermore, this opens the door to yet-to-be-realized opportunities and climate pollution reductions and the strategic elimination of the barriers to further electrification measures.

However, during PCAP development discussions the need for workforce training in the energy sector, from planning to implementation, arose as a major barrier, at present and, predictably, in the future. And so, the planning team met with labor and education stakeholders to discuss the feasibility of adding this component to the program. With the help of entities like Iowa Labor Center, Des Moines Area Community College, and more, an inventory of current offerings, competencies, and needs is underway and will be fully fleshed out through the initial months of the upcoming CCAP. Additionally, the State of Iowa has applied to receive *Training for Residential Energy Contractors* (TREC) grant support from the United States Department of Energy. If this grant is awarded to the State, conversations are already ongoing with potential administering entities to ensure our training efforts collaborate and complement rather than compete.

Furthermore, as a national leader in wind energy, the planning team focused initially on using that energy most efficiently. However, our region would be remiss if it didn't also harness solar energy to complement and expand our clean energy production portfolio. Due to their expansive nature, the planning team has identified the innumerable parking lots and rooftops as priorities for installation rather than green or open space. There is ample opportunity to integrate utility, community, and neighborhood production in urban and rural communities alike, therefore, FRN seeks to partner with utilities, communities, and community-based organizations (CBOs) to install solar energy production that prioritizes low-income household energy bill credits first. We have also identified philanthropic stakeholders interested in funding multi-family housing unit-scale solar energy pilot projects in low-income neighborhoods but being their first endeavor in this space are reluctant to do so. Therefore, directly after submitting this proposal, our team will work to fund and install rooftop panels on Section 8 and other low-income renter-occupied housing to start the ripple we hope becomes a wave of batch-and-build multi-family housing unit solar production integration.

Finally, our proposed Future Ready Neighborhoods would also call for mass planting of native trees and shrubs to build out neighborhood-scale canopies to provide shade, stormwater management, extreme weather protection, carbon sequestration, and reduce urban heat island effects. Our planning team evaluated this need as well and determined that this would require the establishment of a new position, Regional Forester, rather than solely funding trees and shrubs. This coordinated effort would need to be technically prescribed based on locality and potential to produce solar energy at the neighborhood scale, especially outside the right-of-way where most of the current municipal plantings are happening. Therefore, the position would be established and given seed money to analyze and implement. To completely further this work, we would pursue a public-private partnership to fund a regional tiny trees

program rather than the mosaiced tree programs we have at present. Through the CCAP, this program would provide initial marketing and outreach material to work with and from to accomplish this goal.

Finally, Green Iowa AmeriCorps is willing to grant Polk County Public Works and Central Iowa communities host sites to aid in the neighborhood assessments, outreach, and plantings needed, and Iowa State University has willing programs to help build in artificial intelligence and machine learning research into the assessments to expedite across Central Iowa and help replicate it outwards across the state and nation. Again, this effort would start in LIDACs and make its way out to the community at large as more partners, data, and funds come online.

Combined, Future Ready Neighborhoods could be a model for multi-scale, multi-beneficial, and multi-faceted coordinated regional climate action centered on equity and serving historically disadvantaged populations.

Major Features

Centralized & Localized Administration

Polk County is aware that what works in urban areas of Central Iowa may not achieve the same results in rural areas. Therefore, Polk County will develop centralized administration materials, in conjunction with existing programs, through the CCAP process and make those available to all participating agencies for their use and localization. Polk County anticipates regularly convening administrators and working with coordinating agencies to localize program offerings, outreach materials, and administrative processes. Additionally, convenings will be used for partners to discuss program implementation, review operations and effectiveness through methods such as SWOT analyses, establish corrective actions, or promote and expand best practices and successes of the program.

Home Energy Audits & Offerings Selection

The program will expand existing home energy efficiency and weatherization audit programs to include additional electrification capacity checks at no cost to participants. To maintain consistency and alignment with current state and local weatherization programs in this sector, households must be approved for the Low-Income Home Energy Assistance Program (LIHEAP) When complete, auditors will submit their findings to the program administrators. The program administrator will use audit results to produce a curated list of no-cost offerings and an estimated timeline the household can expect for completion.

Polk County, MIPA, and other CBOs will continue to explore opportunities to ensure this program has adequate navigators (case managers) that will help participants receive a smooth process and delivery from start to finish. Navigators will also assist with participant outreach and education, as well as identifying additional reduced-cost clean energy options and pathways.

Program service offerings may include, but are not limited to:

Energy Efficiency & Weatherization Upgrades

- Energy-efficient appliances
- Insulation
- Smart thermostats
- Heating, ventilation, and air-conditioning
- Native tree and shrub plantings

Present & Future Ready Electrification

- Electric panel upgrades
- Residential electric vehicle and renewable energy production infrastructure
- Solar tubes and other passive lighting

The local administrators will coordinate the delivery of service offerings to audit participants. Delivery methods will prioritize full-cost coverage for participants but will continue to identify pathways to incorporate available tax credits, rebates, cost-share programs, and batch-and-build methods to leverage *any* funding to ensure FRNs reach as many LIDAC households as possible.

Furthermore, Polk County and its partners will continue to monitor the release of details on additional grants and public-private partnerships for any resident and tap into those resources where possible to maximize funding efficiencies across the region. Polk County anticipates service delivery will be aligned and coordinated with existing programs, including weatherization and home rehabilitation.

Establishment of Regional Forestry Program

The program will coordinate and execute neighborhood assessments to prescribe strategic plantings of native trees and plants, starting exclusively with LIDAC census block groups. The forestry program will obtain consent from residents to plant native trees and shrubs on private property whenever possible after the assessments are conducted. The forestry program will ensure native trees and shrubs are planted and maintained in cooperation with local partners and technical experts already working in this space. Through this work, a regional forestry master plan and data set will be created and will strategically integrate clean energy opportunities – in addition to the initial plantings and regional coordination of tiny tree programs.

Utility, Municipal, & Community Solar Installations

The program will partner with utilities (public and private) and communities to develop solar farms with as much as 400 MW of capacity regionally with the specific intent of directing energy credits to low-income households – including both renter- and owner-occupied. Whenever possible, these farms will utilize existing built infrastructure, including buildings, parking lots, and other structures, for installation rather than green and open space.

Workforce Development

Throughout the PCAP process and measure development, the workforce has been the number one discussion topic, specifically regarding qualified contractors and energy auditors. Polk County has worked with Des Moines Area Community College (DMACC), Iowa Labor Center, skilled trade unions, energy districts, and other agencies to determine how to rectify this need. That work includes an ongoing gap analysis of current energy sector training opportunities and barriers to guide development and implementation. Additionally, Polk County has identified funding sources—including the Training for Residential Energy Contractors (TREC) — which may soon be available to develop training at the state level. The county will continue to explore options and collaborate with partners to determine which agency will lead collective workforce development efforts, as well as where new energy positions stemming from this program could be employed. Again, Polk County will work to develop public-private partnerships to ensure cohesive action throughout the region.

Polk County will continue to partner with local, regional, and state government organizations and institutions of higher learning to create and provide energy auditor and contractor training, certification, and professional development programs. Furthermore, all agencies involved in this measure are willing to be involved in outreach to recruit prospective contractors and auditors to the varying degrees their agencies have capacity and connection.

Measure Evaluation & Maintenance

Polk County anticipates convening the partner administering organizations at least once a year to evaluate whether any changes to implementation guidance, coordination mechanisms, or the audit addendum form are needed and to incorporate lessons learned and best practices from implementation. Additionally, Polk County anticipates quarterly newsletters to stakeholders informing them of the progress in this and other areas of climate action, and an annual Future Ready Neighborhoods Report with the option to convene all regional partners for further collaboration rippling out from this effort.

Risks: *Table 1. Measure Risks & Mitigation Strategies*

Risk	Effect on GHG Emission Reductions	Mitigation Strategies
Insufficient energy auditor and contractor capacity for additional home audits and service offerings. Existing weatherization and retrofit programs have expressed a need for additional auditor and contractor capacity.	Insufficient capacity could create delays in delivering program offerings. Any delay could reduce near-term cumulative GHG emission reductions.	Provide funding for energy contractor training and certification programs, including outreach to recruit prospective contractors. If such funding is unnecessary due to other available programs, like TREC, any implementation funding allocated to this area will be reallocated pro-rata to weatherization and ecosystem services projects. Partner with Green Iowa AmeriCorps and University of Northern Iowa students on energy audits, neighborhood assessments, and follow-up services.
Participant costs not covered by program incentives may present a barrier to the uptake of the full suite of offerings that could reduce household energy use. Some households will be interested in additional upgrades and services that would be above the cap per household.	Limited uptake could reduce the ability of the program to capture all potential near- and long-term cumulative GHG emission reductions.	Partner with community development financial institutions to provide low-interest financing for participant costs not covered by the program. Partner with municipal utilities to provide opportunities for “pay as you save” financing on utility bills.
Heavy resistance and little to no cooperation from the State of Iowa.	Lack of support could reduce near-term cumulative GHG emissions reductions.	Partner with federal, county, local, and regional levels of government, as well as other stakeholders to fill in any lacking capacity. The current planning team already leveraging partnerships to overcome this issue at present.

Demonstration of Funding Need

Cities, counties, regional agencies, and other organizations across Central Iowa receive state and federal funding to administer various programs that fund weatherization, energy efficiency, and/or home rehabilitation upgrades for owner-occupied single-family homes. (See Appendix G for a summary of programs that relate to this measure.) However, these programs do not meet the existing need. For example, the Polk County weatherization program has a waitlist of more than 9,000 households; the New

Opportunities, Inc. weatherization program has a waitlist of more than 3,000 households; and the IMPACT Community Action Partnership weatherization program has a waitlist of hundreds of households. Statewide, the Low-Income Weatherization Assistance Program approves approximately 80,000 applications, but only 2,000 of these can be served each year based on current funding levels.

Agencies carrying out these programs in Central Iowa were asked to participate in the development of this measure. In addition to in-depth discussions about measure delivery, they were surveyed regarding their offerings, barriers, and needs. More than 12,500 homes are currently waitlisted in the region, and less than 600 are completed each year at current funding and staffing levels. Polk County and all coordinating agencies acknowledge additional funding and capacity is needed to reduce low-income household energy burdens, increase staffing levels, and reduce emissions in Central Iowa. This measure aims to ensure all three.

Funding assistance for solar production and tree plantings on private land is sparser than the energy efficiency sector. Solar for All has been applied for at the state level, but is likely to be a subscription program with a small amount set-aside for low-income households. Recently, the United States Department of Agriculture awarded urban forestry grants to Des Moines (\$2.5 million), Ames (\$810,500), and West Des Moines (\$500,000) to increase tree canopies within these three cities. FRN would ensure collaboration with these grant-funded programs to smooth the regional application of FRN forestry benefits.

Additionally, there have been some private sector investments in FRNs components including from private utility companies like MidAmerican Energy. Programs such as SummerSaver™ offer customers discounts of up to \$40 annually to install smart thermostats and allow MidAmerican to control the temperature of their home during peak summer hours. With such a small savings and a big ask of households, this program is not enticing enough to make a big impact on GHG reductions. However, MidAmerican also has programs that are popular, enticing, and have success in sequestering carbon, such as TreesPlease™ - a program that provides small grant awards to cities for tree plantings on public property. Again, this program is popular, but does not address the needed canopy coverage on private lands like FRN would be able to.

Table 2 below describes the funding sources that cities, counties, regional agencies, and the State of Iowa have secured or are pursuing that would complement Future Ready Neighborhoods electrification and weatherization (grey font), workforce development (red font), renewable energy (blue font), and forestry (green font) components.

Funding Program	Funding Entity	Description	Gaps
Existing Funding Sources			
Weatherization Assistance Program (WAP)	U.S. Department of Energy	State of Iowa (hereafter, “State”) passes WAP funding through to local Community Action Agencies (CAAs).	<ul style="list-style-type: none"> WAP funds can only be used for cost-effective upgrades, which wouldn’t fund the electric panel upgrades, EV chargers, and other provisions. CAAs have long waitlists for current weatherization services. The programs have a 200% FPL income cap.
LIHEAP⁴	U.S. Department of Health & Human Services	Provides energy bill assistance to low-income households. State passes funding through to CAAs. LIHEAP applications inform weatherization program lists and indicate the high level of need.	<ul style="list-style-type: none"> Cannot be used to implement projects. CAP agencies have long waitlists. The programs have a 200% FPL income cap.
Community Development Block Grant Program⁵	U.S. Department of Housing and Urban Development	Provides formula funding to states and local governments to provide decent housing and support low-moderate-income households. Eligible activities can include rehabilitation of residential and non-residential structures and energy conservation and renewable energy resources.	<ul style="list-style-type: none"> Not typically used for extensive energy efficiency or electrification upgrades Not available to cities under 50,000 or counties under 200,000 residents
USDA Housing Preservation Grants⁶	U.S. Department of Agriculture	Region XII Council of Governments used this to fund repair/rehabilitation of housing owned or occupied by low-income rural citizens in Dallas and Guthrie counties. Can be used to replace insulation, electrical wiring, and heating systems.	<ul style="list-style-type: none"> Can only be used for areas considered rural by USDA. Out of the counties included in the planning area, this has only been used in Dallas and Guthrie Counties.

⁴ U.S. Department of Health & Human Services. (n.d.). *Low Income Home Energy Assistance Program (LIHEAP)*. <https://www.acf.hhs.gov/ocs/programs/liheap>.

⁵ U.S. Department of Housing and Urban Development. (n.d.). *Community Development Block Grant Program*. https://www.hud.gov/program_offices/comm_planning/cdbg.

⁶ U.S. Department of Agriculture Rural Development. (n.d.). *Housing Preservation Grants*. <https://www.rd.usda.gov/programs-services/single-family-housing-programs/housing-preservation-grants>.

Funding Program	Funding Entity	Description	Gaps
National Housing Trust Fund⁷ & State Housing Trust Fund⁸	U.S. Department of Housing and Urban Development State of Iowa	Local Housing Trust Funds (LHTF) receive funding from the IFA to develop or preserve affordable housing. Services include rental assistance, home repair, and homelessness assistance.	<ul style="list-style-type: none"> Most LHTFs focus their spending on critical household rehabilitation needs, rather than energy efficiency, renewable energy, or electrification services. Some LHTFs have a spending cap per household (e.g., Story County limited owner-occupied rehab costs up to \$15,000 per household). In most cases, households must be at or below 80% AMI.
Urban Forestry Grants⁹	U.S. Department of Agriculture	The Iowa Legislature appropriated state infrastructure funds to the Iowa Department of Natural Resources (Iowa DNR) to be used for a community-based tree planting program for derecho recovery tree planting	<ul style="list-style-type: none"> The Community Forestry Grant is only available to organizations rather than individuals Trees can only be planted on approved public land and DNR lands are not eligible
Residential Tree Programs¹⁰	State of Iowa	Department of Natural Resources (DNR) through a partnership with Alliant Energy offers homeowners trees at an extreme discount	<ul style="list-style-type: none"> Customers are limited to two trees per property Does not provide extensive canopy cover Trees are only distributed during specific event dates
Pending Funding Sources			
Inflation Reduction Act Home Energy Rebates¹¹	U.S. Department of Energy	Funded by the IRA, the Home Efficiency Rebates and Home Electrification and Appliance Rebates will be administered by the State and fund efficiency and electrification upgrades for single- and multi-family households.	<ul style="list-style-type: none"> The State is still in the process of designing these rebates. Historically, rebates have been less accessible to low-income and ALICE populations because they cannot afford them due to the upfront costs of the product/action/measure.¹²

⁷ Iowa Finance Authority. (n.d.). *National Housing Trust Fund*. <https://www.iowafinance.com/programs-for-property-developers/national-housing-trust-fund/>.

⁸ Iowa Finance Authority. (n.d.). *State Housing Trust Fund*. <https://www.iowafinance.com/state-housing-trust-fund/>.

⁹ Iowa Department of Natural Resources. (n.d.). *Urban Forestry*. <https://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry>

¹⁰ State of Iowa Department of Natural Resources. Residential Tree Programs <https://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Residential-Tree-Programs>

¹¹ Department of Energy Office of State and Community Energy Program. (n.d.). *Home Energy Rebates Program*. <https://www.energy.gov/scep/home-energy-rebates-programs>.

¹² United Ways of Iowa & United for ALICE. (2023). *ALICE in the Crosscurrents: COVID and Financial Hardship in Iowa*. https://www.uwiowa.org/sites/uwiowa/files/ALICE/23UFA_Report_Iowa_4.11.23_FINAL.pdf

Funding Program	Funding Entity	Description	Gaps
Solar For All¹³	U.S. Environmental Protection Agency	Funded by the IRA, expands the number of low-income and disadvantaged communities primed for residential solar investment—enabling millions of low-income households to access affordable, resilient, and clean solar energy.	<ul style="list-style-type: none"> • The State of Iowa has applied to this program with much of Central Iowa’s endorsement. • If awarded, the Iowa program specifics are still being determined.
State-Based Home Energy Efficiency Contractor Training Grants¹⁴	U.S. Department of Energy	The Iowa Economic Development Authority will provide contractor training on energy auditing and the proper installation of high-energy efficient equipment and energy-saving practices. TREC is anticipated in 2024.	<ul style="list-style-type: none"> • The State of Iowa will receive \$2.19 million for statewide work through TREC formula funding. • The need for auditors and contractors in Central Iowa is high.
Energy Efficiency Revolving Loan Fund Capitalization Grant Program¹⁵	U.S. Department of Energy	The program will provide a capitalization grant to the State to establish a revolving loan fund (RLF) to provide loans and grants for energy efficiency audits, upgrades, and retrofits. Awards anticipated spring 2024.	<ul style="list-style-type: none"> • The State of Iowa is planning to use the funding for energy efficiency upgrades and retrofits for commercial buildings and multifamily housing, so this will not provide funding for the residential upgrades.
Energy Efficiency and Conservation Block Grants¹⁶	U.S. Department of Energy	Several cities in Central Iowa and the State of Iowa received EECBG formula funding. The State is using its funds for two competitive grant programs. The Community Fund focuses on energy efficiency retrofits in communities that are not eligible to receive a direct EECBG allocation, while the Innovation Fund allows innovative projects with either an energy efficiency or renewable energy focus at local governments, nonprofits, and for-profit entities.	<ul style="list-style-type: none"> • It is not yet known what specific projects will be funded through the state grant programs.

¹³ United States Environmental Protection Agency: Solar for All (2024). <https://www.epa.gov/greenhouse-gas-reduction-fund/solar-all>

¹⁴ United States Department of Energy: Training for Residential Energy Contractors Grants (Formula). <https://www.energy.gov/scep/training-residential-energy-contractors-grants-formula>

¹⁵ Department of Energy Office of State and Community Energy Program. (n.d.). *Energy Efficiency Revolving Loan Fund Capitalization Grant Program*. <https://www.energy.gov/scep/energy-efficiency-revolving-loan-fund-capitalization-grant-program>.

¹⁶ Department of Energy Office of State and Community Energy Program. (n.d.). *Energy Efficiency and Conservation Block Grants*. <https://www.energy.gov/scep/energy-efficiency-and-conservation-block-grant-program>.

Transformative Impact

Replicable & Scalable Program Models

The incentive-based nature of FRN means it presents participating communities with a menu of options rather than demands, which could help stem polarized perceptions of climate action. By combining home upgrades, workforce training, renewable energy, and forestry measures, FRN establishes an integrated framework for coordinated community-scale climate solutions.

Through a streamlined “batch-and-build” process modeled after successful watershed conservation programs, FRN will systematically aggregate multiple homes, buildings, or projects together to obtain economies of scale. Like Iowa’s proven batch-and-build model—which modernizes conservation project management by installing batches of practices on multiple properties at once—FRN will batch together energy efficiency and clean energy upgrades that will allow for faster acceleration of climate progress while reducing costs compared to building-by-building implementation.

Hard-to-Abate Neighborhoods & Homes

Low-income neighborhoods and older homes present unique challenges for energy efficiency improvements. There are often disjointed incentives for renters, landlords, and homeowners, and many lack the upfront capital needed due to limited savings or credit access. Older homes also frequently require more extensive rehabilitation work to comprehensively improve efficiency. FRN directly addresses these barriers through no-cost energy audits to identify solutions. Financing partnerships help fill funding gaps, and connect with other complementary services through social service organizations and utility assistance programs.

Taking a neighborhood-scale approach in LIDAC census tracts helps overcome individual participation barriers. Sharing information widely through targeted local groups and social networks addresses common hurdles to program awareness and will be key to unlocking progress. This will enable emissions reductions in hard-to-abate sectors that have not benefited from traditional single-measure programs.

Accelerated Market Adoption & Transformation

By overcoming common barriers, FRN aims to catalyze widespread adoption of cost-effective energy efficiency practices. In particular, electric panel upgrades and installing solar farms that directly benefit low-income households will transform these sectors. Coupling audits with increased electrification capacity primes participants to more easily adopt emerging technologies like heat pumps, electric vehicles, and distributed renewable energy as they become increasingly affordable, and transforms participant mindsets from single projects to a comprehensive climate resilience lens.

FRN also cultivates educational and professional development opportunities, with initial emphasis on higher education and sector-specific training. Workforce training programs will cultivate skills in energy auditing, weatherization, and renewable energy generation installation. This training component has potential to be expanded as a model for hands-on, service-learning experiences at almost any level to develop a talent pipeline.

Regional tree planting also accelerates markets for resilient native species and extreme weather preparedness. Establishing a regional forestry program lays long-term institutional infrastructure for coordinated tree planting and stewardship. This resource transforms over time as trees mature and continue sequestering carbon each year.

Outreach combined with education demystifies various clean energy options, which primes future markets as residents learn about solutions and spread knowledge throughout their social networks. These measures

have potential to galvanize wider transformation of Central Iowa’s built environment and kickstart a clean energy ecosystem.

Directing renewable energy credits from the proposed solar farms to low-income households has significant potential to meaningfully advance energy justice both short- and long-term. By offsetting a portion of monthly energy bills with credits from the newly installed solar arrays, low-income participants will directly benefit from the clean energy being generated. This helps address current energy burdens faced by these communities. Over time, as the solar farms generate credits year after year, the long-term savings adds up. This enables sustainable cost-savings and energy independence, ensuring low-income families can enjoy lasting dividends from investments in their communities through steady, predictable cost reductions. By focusing benefits on those facing disproportionate energy burdens, this approach helps accelerate progress toward an equitable clean energy transition for all.

Ripple Effects

Implementing comprehensive climate action in neighborhoods through FRN is expected to have wider ripple effects across the region. As a voluntary, incentive-driven program, FRN empowers communities to seek solutions rather than impose government directives.

Increased affordability and comfort from efficiency upgrades improves quality of life, housing stability, health, and community cohesion. Witnessing the demonstrated co-benefits firsthand will inspire and motivate additional neighborhoods to also seek solutions. An expanded clean energy workforce enables broader regional emissions reductions far into the future. New installers and auditors will continue the work for decades as the industry and technologies evolve. As electrification gains hold, additional emissions reductions will accrue in the transition away from fossil fuels. Comprehensive tree canopy coverage improves climate resilience to extreme heat and storms for all residents.

By turning the challenge of climate change into an opportunity for community empowerment and economic prosperity, FRN points the way towards a transition that is both ambitious and inclusive. By coordinating efforts across sectors, building workforce capacity, cultivating partnerships, and directing benefits to those who need them most, this program establishes a replicable model that could meaningfully accelerate emissions reductions while improving quality of life. Most importantly, FRN highlights how decentralized climate progress is possible even in politically divided contexts, by meeting people where they are and appealing to shared interests in saving money, local jobs, public health, and neighborhood livability. If programs like FRN can thrive in the American heartland and prove that climate action is compatible with economic growth and community priorities, it will demonstrate a path forward where mandates and polarization have thus far failed. In doing so, FRN has a chance to not only cut emissions but weave climate solutions into the cultural fabric of cities and towns—building grassroots resolve and resilience that transcends any election cycle or policy trend.

2. IMPACT OF GHG REDUCTION MEASURES

Documentation of GHG Reduction Assumptions – See document Techappx_PolkCountyIA.

Cost Effectiveness of GHG Reductions

2025 – 2030: \$49,999,999.00/62,917mt CO₂e = \$794.70/ mt CO₂e

2025 – 2050: \$49,999,999.00/482,362mt CO₂e = \$103.66/ mt CO₂e

Table 3: Magnitude of GHG Reductions from 2025 through 2030 & 2025 through 2050

Greenhouse Gas	2026-2030 Total	2025-2050 Total
Sulfur Oxide (lbs)	-12,250	-61,250
Nitrous Oxide (lbs)	-10,340	-51,700
Ozone Season Nitrous Oxide (lbs)	-4,630	-23,150
Carbon Dioxide (tons)	-8,520	-42,600
Particulate Matter 2.5 (lbs)	-1,060	-5,300
Volatile Organic Compounds (lbs)	-350	-1,750
Ammonia	-330	-1,650
Carbon Dioxide Equivalent (mt)	-62,917	-482,362

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

Through the implementation of these measures, included in Central Iowa’s Priority Climate Action Plan, Central Iowa aims to see a ~10% emission reduction from CPRG Phase II funding investments – based on the 2020 greenhouse gas emissions inventory included in Central Iowa PCAP.

Expected Outputs and Outcomes

Through the implementation of these measures, included in Central Iowa’s Priority Climate Action Plan, Central Iowa aims to see a ~10% emission reduction from CPRG Phase II funding investments – based on the 2020 greenhouse gas emissions inventory included in Central Iowa PCAP.

Expected outputs include:

- Approximately 1674 low-income households audited and weatherized with emphasis on LIDAC census block groups
- New auditors who are trained and certified
- Energy savings in therms, gallons, and MWh in low-income households
 - See the GHG calculation spreadsheet for savings estimates
- Creation of Regional Forester position
- Creation of a Central Iowa Forestry Plan
- Up to 35,000 native trees and shrubs planted in LIDAC neighborhoods
- Up to 400 MW of solar energy added to Central Iowa’s production portfolio at multiple scales
 - Direct CPRG investment expects no less than 5 MW utility scale implementation

Expected outcomes include:

- Cumulative GHG emissions reduced or sequestered for full measure:
2025 – 2030: 268,007 mt CO₂e 2025 – 2050: 1,388,053 mt CO₂e
- Cumulative GHG emissions reduced or sequestered from CPRG direct investment
2025 – 2030: 62,917 mt CO₂e 2025 – 2050: 482,362 mt CO₂e
- Reduced air pollutant emissions
- Reduced energy cost burdens
- Reduced urban heat island effects
- Establishment of a regional forestry program
- Production of LIDAC neighborhood assessments and strategic energy planning
- Increased LIDAC neighborhood readiness and resiliency
- Increased clean energy production
- Increased LIDAC access to energy efficiency and technology
- Increased direct LIDAC benefits of clean energy production

- Increased climate solutions education and professional development offerings
- Increased energy auditing and efficiency workforce capacity
- Increased inter-governmental coordination
- Increased regional climate action outreach, engagement, and education

Performance Measures and Plan

Average site-built single-family home statistics from the “Report on the Impacts and Costs of the Iowa Low-Income Weatherization Program for Calendar Year 2022” were used to estimate heat (therms, gallons) and electricity savings in kilowatt-hours (kWh) for implementation of weatherization offerings for FRNs. Solar production data statistics from Winneshiek Clean Energy District and City of Ames SunSmart program were used to localize implementation estimates.

The budget for the Future Ready Neighborhoods program (see GHG calculation spreadsheet) was used to identify the number of households that could be served and trees and shrubs planted in Central Iowa neighborhoods. Activity data assumptions used to estimate emission reductions are summarized below:

- Number of additional households served through FRNs: 1674 (approximately 335 per year between 2025 and 2029)
- Household main heating source percentages:
 - Natural Gas: 79.7%
 - Propane: 13.2%
 - Fuel Oil: 0.5%
 - Electricity: 6.6%
- First-year fuel savings per household from weatherization by main heating sources
 - Natural Gas: 278 therms
 - Propane: 324 gallons
 - Fuel Oil: 195 gallons
- First-year electricity savings per household from weatherization by main heating source:
 - Natural Gas: 891 kWh
 - Propane: 1280 kWh
 - Fuel Oil: 1292 kWh
 - Electricity: 4441 kWh
- Trees planted: 35,326 (approximately 7,065 per year between 2025 and 2029)
- Establishment of solar production annually in MW
 - approximately 1MW per year between 2025 and 2029 directly from potential CPRG investment
 - 1 MW solar capacity produces electricity for 220 homes
 - Average Midwest home creates about 17 tons of carbon emissions annually
 - 1 US ton = 0.907185 metric tons
 - 1 home = 15.42 mt CO₂e
 - CO₂e saved annually per MW = 3,393 mt

The FRN program will track the first-year energy savings (fuel and electricity), first-year energy cost savings, trees planted, and program expenditures for each year of the program to verify the emission reductions achieved from the implementation of this measure.

Authorities, Implementation Timeline, and Milestones

Table 4: Tasks, Timeline, and Milestones

Task #	Task Description	Anticipated Milestones
1	Pursue CPRG implementation funding	March – April 2024
2	Develop Quality Assurance Project Plan for all FRN parts	April – May 2024
3	Conduct LIDAC neighborhood prioritization analysis	May – September 2024
4	Potentially, receive award of implementation funding	July 2024
5	Convene regional partners to discuss LIDAC prioritization outcomes and county funding allocation	August 2024-October 2024
6	Community partners & utility stakeholder engagement around measure implementation administration specifics	August 2024 – October 2024
7	Determination of final subawardees	November 2024
8	Enter funding sub-agreement with Mid-Iowa Planning Alliance for rural county administration & implementation	November 2024
9	Produce implementation guidance and establish a Regional Forestry Program, including hiring of Regional Forester	November 2024
10	Coordinate training and apprenticeship programs.	Fall/Winter 2024
11	Conduct analysis to prioritize of solar installation at CBOs.	Winter 2024-25
12	Begin bidding and procurement of services for all FRN parts	January 2025 - May 2025
13	Implement Future Ready Neighborhoods	Spring 2025 – October 2029
14	Prepare and submit semi-annual report for EPA per grant guidance	Bi-annually in fall & spring
15	Continuously monitor, evaluate, and adjust the program as needed and per grant guidance in coordination with regional partners.	Bi-annually in fall & spring
16	Prepare and submit final report for EPA per grant guidance	August - October 2029

4. LOW-INCOME AND DISADVANTAGED COMMUNITIES

Community Benefits

Climate change impacts will affect all communities in Central Iowa. Polk County recognizes the disproportionate impacts that climate change has had and will have on the region's low-income and disadvantaged community members (LIDACs). Polk County has utilized the EPA's Environmental Justice Screening and Mapping Tool (EJScreen Version 2.2)¹⁷, IRA Disadvantaged Communities map, and the Climate and Economic Justice Screening Tool (CEJST)¹⁸ to identify and analyze the anticipated benefits and potential disbenefits of each priority measure on its LIDACs. See *Area_PolkCountyIA* document for a list of the identified census block groups and disadvantaged communities within Central Iowa.

The measure, Future Ready Neighborhoods (FRN), focuses on serving low-income Central Iowans to reduce their energy burdens and achieve a greater quality of life. Anticipated benefits or potential disbenefits for LIDAC associated with the measure implementation are summarized in this section.

Implementing FRN will provide residential energy efficiency, electrification, and ecosystem services that will reduce home energy bills, improve resiliency, and mitigate heat island effects in Central Iowa for low-income households and neighborhoods. The services provided will fill a significant gap that Central Iowa's

¹⁷ U. S. Environmental Protection Agency. 2023 version. EJScreen. Retrieved: February 1, 2024, from <https://ejscreen.epa.gov/mapper/>

¹⁸ Council on Environmental Quality. (2022, November). Climate and Economic Justice Screening Tool. <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

weatherization service providers and energy efficiency rebate programs cannot currently meet due to limited resources and capacity.

Multiple offerings are available per household and allow residents with lower incomes to identify and pursue the services that best fit their needs, with expert guidance from home energy auditors. Given that household heating, cooling, and powering account for around 20% of the country's energy-related GHG emissions, implementation of the FRN will produce significant benefits at both the individual and community level for thousands of Iowans whose needs have not yet been met through existing programs.¹⁹²⁰

Focusing on improving the accessibility of weatherization services, specifically for LIDACs, is imperative. This is highlighted by the U.S. Department of Energy (DOE) that reported a national average energy burden of 8.6% of gross household income for low-income households, and just 3% of gross income for non-low-income households²¹. Expediting waitlists and removing cost-barriers for LIDACs to access weatherization will help reduce the energy burden gap in Central Iowa.

Most notably, FRN will help low-income residents reduce their energy consumption and save money. Services such as insulation upgrades, air leakage reduction, and window upgrades will directly reduce the amount of energy that can escape homes due to old, inefficient building envelopes. According to the U.S. Energy Information Administration (EIA), the average monthly residential electricity bill in Iowa is approximately \$113.29²². It is estimated by the Environmental and Energy Study Institute that weatherizing a typical home can lower energy bills by \$437 annually²³. Implementing FRN will not only reduce residents' energy bills but also increase their comfort by eliminating the need to overheat or overcool their homes in response to air leaks.

Furthermore, a decrease in individual residential energy use will reduce the grid's overall energy demand. Throughout the year, energy demand peaks in response to extreme weather conditions; peaks are further exacerbated by inefficient residential energy use, which requires utilities to ramp up generation from less efficient or carbon-intensive power plants. Providing energy efficiency services to residential homes will support a more reliable and resilient grid, even during extreme weather conditions. Moreover, a tighter, well-insulated building envelope increases resilience by minimizing conditioned air loss and temperature swings inside the home during extreme weather events like derechos, ice storms, or blizzards that can lead to multi-day power outages²⁴. This protection is important for ensuring the health and safety of vulnerable populations like the elderly and those with limited mobility during such events.

Electrification of household appliances such as stoves, ovens, water heaters, furnaces, and dryers that rely on fossil fuel combustion have all been shown to emit air pollutants such as nitrogen oxides (NOx), carbon monoxide (CO), PM2.5, and formaldehyde, which can cause and exacerbate health issues like respiratory diseases, neurological disabilities, cardiovascular complications, and even increase cancer risk with long-term exposure²⁵. Replacing these appliances with fully electrified versions will reduce indoor air pollution and improve household health. Children, the elderly, and those with pre-existing respiratory or cardiovascular conditions are especially vulnerable to the health impacts of indoor air pollution from gas appliances. By transitioning to all-electric, ultra-efficient appliances powered by clean energy sources like wind and solar, indoor air quality will be drastically improved in low-income households. This reduces triggers for asthma attacks, alleviates respiratory symptoms, and lowers the risk of developing adverse cardiovascular and

¹⁹ [https://www.pnas.org/doi/10.1073/pnas.1922205117#:~:text=Roughly%20%25%20of%20US%20energy,larger%20than%20Germany%20\(2\)](https://www.pnas.org/doi/10.1073/pnas.1922205117#:~:text=Roughly%20%25%20of%20US%20energy,larger%20than%20Germany%20(2))

²⁰ Goldstein, B., Gounaridis, D., & Newell, J. P. (2020). The carbon footprint of household energy use in the United States. *Proceedings of the National Academy of Sciences*, 117(32). 19122–19130.

²¹ <https://www.energy.gov/scep/slsc/low-income-community-energy-solutions#:~:text=Energy%20burden%20is%20defined%20as,which%20is%20estimated%20at%203%25>

²² <https://findenergy.com/ia/>

²³ <https://www.eesi.org/briefings/view/state-energy-programs-and-their-economic-impacts>

²⁴ [https://www.energycodes.gov/sites/default/files/2023-07/Efficiency for Building Resilience_PNNL-32727_Rev1.pdf](https://www.energycodes.gov/sites/default/files/2023-07/Efficiency%20for%20Building%20Resilience_PNNL-32727_Rev1.pdf)

²⁵ Goldstein, B., Gounaridis, D., & Newell, J. P. (2020). The carbon footprint of household energy use in the United States. *Proceedings of the National Academy of Sciences*, 117(32). 19122–19130.

neurological conditions over time. The improved health outcomes provide immense quality of life benefits, reduce missed school and work days, and prevent costly hospital visits and treatments²⁶²⁷.

Neighborhood electrification includes strategic investment into electric vehicle charging infrastructure, which provides significant long-term benefits to LIDAC communities. A key barrier to EV adoption for low-income households has been the upfront cost of purchasing an electric vehicle. However, with expanding federal tax credits of up to \$7,500 for new EVs under the Inflation Reduction Act, the total cost of ownership is becoming more comparable to gasoline-powered vehicles when factoring in much lower fueling and maintenance costs over the vehicle's lifetime²⁸.

Deploying publicly accessible Level 2 and DC fast charging stations in LIDAC neighborhoods eliminates another major hurdle - the inability to charge conveniently at home, which is especially problematic for residents of multi-unit dwellings like apartments²⁹. By utilizing charging infrastructure at central locations like community centers, libraries, parks and retail hubs, EV ownership becomes more accessible for a wider range of income levels without the need to install private chargers.

This increased accessibility to charging can empower more LIDAC residents to take advantage of the federal tax credits and lower operating costs of EVs. Studies have shown that low-income households spend a disproportionately higher percentage of their income on transportation costs compared to higher income groups³⁰. Transitioning to an EV can cut fuel expenditures compared to a gasoline vehicle. The savings compound over time and free up income for other essentials like housing, food, and healthcare.

In addition to household and neighborhood benefits, FRN will also promote community health and economic sustainability through ecosystem services provided by planting native trees and shrubs in LIDAC neighborhoods. Trees provide important net positive effects on air quality and human health when integrated thoughtfully and strategically into the built environment. Notably, increasing urban tree canopy and vegetative cover provides numerous public health benefits. Trees improve air quality by directly removing gaseous and particulate air pollutants through their leaf surfaces³¹. They also reduce ambient air temperatures through shading and evapotranspiration²⁹. Elevated air temperatures and poor air quality are major environmental risk factors that contribute to respiratory diseases like asthma, cardiovascular problems, and increased mortality rates²⁹. By mitigating these impacts, urban forests lead to quantifiable reductions in premature deaths, asthma episodes, respiratory symptoms, and missed school days²⁹. Increasing canopy cover has direct positive impacts on air quality and human health while also decreasing residential dependence on the fossil fuel grid. Nationally, trees in urban areas are reducing associated residential energy costs by 7.2%³².

Furthermore, trees within neighborhoods create shaded environments that encourage walkability and physical activity for residents³³. The cooling effect naturally facilitates active transportation modes like walking and biking by making those options more comfortable, leading to further reductions in vehicle emissions and in turn improved public health outcomes through improved air quality. Trees also aid in managing stormwater runoff by intercepting rainfall, thereby decreasing flood risks and enhancing community resilience as extreme precipitation events intensify with climate change³⁴. In addition to direct

²⁶ <https://rmi.org/insight/gas-stoves-pollution-health>

²⁷ <https://www.epa.gov/indoor-air-quality-iaq/household-energy-and-clean-air>

²⁸ <https://www.irs.gov/credits-deductions/credits-for-new-clean-vehicles-purchased-in-2023-or-after>

²⁹ <https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds#:~:text=DCFC%20equipment%20can%20charge%20a,%2C%20theaters%2C%20or%20coffee%20shops>

³⁰ <https://www.itdp.org/2024/01/24/high-cost-transportation-united-states/>

³¹ https://www.fs.usda.gov/nrs/pubs/jrnl/2020/nrs_2020_nowak_004.pdf

³² <https://doi.org/10.1016/j.ufug.2016.12.004>

³³ <https://iowadot.gov/iowainmotion/files/Complete-Streets-Policy.pdf>

³⁴ <https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands#:~:text=Benefits%20and%20Costs&text=Improved%20air%20quality%20and%20lower,store%20and%20sequester%20carbon%20dioxide>

health benefits, a robust urban tree canopy enhances community green spaces which provide mental health advantages and overall improved well-being for residents³⁵. Increased exposure to natural areas is associated with reduced stress levels and greater life satisfaction³⁶.

While tree planting and urban forestry efforts must be designed carefully to avoid potential negative impacts, the thoughtful integration of trees into the built environment provides a significant net positive impact on environmental quality and public health. By expanding tree canopy strategically in disadvantaged communities, this program aims to equitably disperse those quality of life benefits to the populations most in need.

To further ensure the renewable portfolio of Central Iowa continues to grow, FRN will seek out partnerships to develop up to 400 megawatts of utility-scale and municipal solar farms that will directly provide energy credits to low-income households and reduce their energy cost burdens. Rather than installing solar at each individual residence, this larger community solar approach allows for economies of scale while still passing the renewable energy benefits onto disadvantaged communities.

The energy credits generated by these solar farms will be allocated specifically to low-income utility customers enrolled in the program. For the portion of their monthly electricity use covered by the solar credits, participants will see a reduced bill as they are not paying for that energy from the utility's fossil fuel-based generation sources.

This model provides an innovative solution for achieving renewable energy equity and lowering the disproportionately high energy burdens faced by disadvantaged groups. Low-income households can receive the cost-saving benefits of solar power without having to front the capital costs of a rooftop installation themselves. At the same time, siting large solar farms provides jobs and tax revenue to local communities.

Directing energy credits from this 400-megawatt solar pipeline specifically to disadvantaged utility customers is an impactful way to make clean energy more accessible and affordable for populations traditionally excluded from the renewables transition. As the projects are built out over time, the cost savings for low-income participants will continue growing.

By leveraging community solar at this scale, the program ensures the economic benefits of transitioning to renewable electricity sources reach those who need it most in the form of lower monthly bills and decreased energy insecurity. This innovative application expands energy equity and charts a path for other utilities to follow.

Additionally, the implementation of FRN will directly incentivize the creation of new, well-paying jobs in Iowa's Clean Energy economy. Increased demand for services like residential energy audits, insulation and weatherization, HVAC upgrades, solar installations, and more will necessitate hiring more trained professionals in these fields. Overall, these services allow residents to make clean energy decisions that meet their needs. By providing these services, Polk County will be able to promote GHG emissions reductions, efficient energy usage, individual and community health, local economic sustainability, and more, all while providing experiential education around clean energy and household energy efficiency for the benefit of the community and generations to come.

³⁵<https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands#:~:text=Benefits%20and%20Costs&text=Improved%20air%20quality%20and%20lower,store%20and%20sequester%20carbon%20dioxide>.

³⁶ <https://doi.org/10.1016/j.envres.2017.07.009>

According to data from Clean Jobs Midwest, there were already over 31,000 clean energy jobs in Iowa in 2022, with around 19,000 of those in the energy efficiency sector³⁷. Investing in clean energy jobs through FRN has the potential to boost employment even further across energy auditing, HVAC, renewable energy, and other sustainability-focused vocations. The Inflation Reduction Act's provisions ensure the jobs it funds are good-quality jobs that provide fair wages and benefits. For the first time, new clean energy tax credits are directly tied to labor standards like prevailing wages and registered apprenticeship programs. This bakes in a commitment to workforce development and family-sustaining careers as a foundation of the emerging climate economy.

By implementing weatherization, electrification, solar, and other services through a well-trained local workforce, residents can make clean energy decisions for their homes while simultaneously uplifting job opportunities in their own communities. The economic impacts will compound over time as money saved on energy costs is recirculated locally. Overall, in addition to reducing greenhouse gas emissions and improving public health, this program creates a pathway for well-paid employment that builds valuable technical skills. Polk County can promote efficient energy usage, local economic sustainability, and hands-on education around residential clean energy solutions, providing long-term benefits for the community and future generations.

A key component of these measures is partnering to develop up to 400 megawatts of utility-scale and municipal solar farms that will directly provide energy credits to low-income households and reduce their energy cost burdens. Rather than installing solar at each individual residence, this larger community solar approach allows for economies of scale while still passing the renewable energy benefits onto disadvantaged communities. The energy credits generated by these solar farms will be allocated specifically to low-income utility customers enrolled in the program. For the portion of their monthly electricity use covered by the solar credits, participants will see a reduced bill as they are not paying for that energy from the utility's fossil fuel-based generation sources.

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Community Engagement

Input by LIDAC has been incorporated through the planning process of this application and has been made transparent through the inclusion of many groups in putting together the plan itself, as well as the publication of the priority climate action plan (Central Iowa PCAP_PolkCountyIA). Community feedback has been considered at every step of the process and will continue to be considered as the project progresses.

Strategic and meaningful community involvement detailed below:

³⁷ <https://www.cleanjobsmidwest.com/state/iowa>

- Online resources:
 - Web page: www.whatsnextcentraliowa.org
 - Email list
 - Social media
 - Community surveys
- Community meetings across the state with options for in-person, livestream, and video conference participation;
- Targeted outreach to known community-based organizations; and,
- Working with trusted messengers (e.g., community-based organizations) to reach residents who don't typically participate in government-sponsored events.

A wide variety of outreach techniques will be employed to ensure effective community engagement. These techniques include strategic placement of informational posters and participation in public events through tabling. Additionally, a targeted social media campaign will be launched to engage residents and community members within the grant specified MSA.

To facilitate public feedback, multiple avenues will be provided across social media and other outreach platforms. This includes website accessibility with options to provide feedback, utilization of QR codes that direct interested respondents to an intake form, and the incorporation of accessible links through social media channels. In order to reach community members from less populated areas in the region, Polk County intends to focus on major events held in each county within the MSA.

Implementation will include tabling or displaying posters at various public events, a social media campaign targeted at residents and community members located within the grant specified MSA, the training of trusted community messengers (in order to reach residents who don't typically participate in government-sponsored events), etc. Access for the public to give feedback will be available through each outreach technique whether that be through access to the website, QR code that directly takes an interested respondent to a question intake form, or otherwise accessible links through social media. Polk County plans to target large events in each county within the MSA that have the potential to draw in community members from less populated areas in the region.

Getting community feedback on local benefits is the top priority of all outreach and engagement as well as raising awareness for available programs and incentives for LIDAC. To include various linguistic perspectives, these resources and feedback opportunities will be available in the languages spoken of community members within the MSA. (Is this true? I mean we should do this so) Taking feedback and applying it through direct communication with respondents, application to the Q&A section of the website, inclusion in a linked, original educational video or post on social media, etc. will further increase access to LIDAC.

A full listing of community engagement can be found in Appendix A: Outreach and Coordination Log. Meaningful engagement with low-income and disadvantaged communities will be continuously included in the development and implementation of the GHG reduction measure FRN throughout the life of this grant.

5. JOB QUALITY

Polk County is committed to ensuring the implementation of its proposed greenhouse gas reduction measures generates high-quality jobs. The county will adhere to strong labor standards that provide family-sustaining wages, benefits, and protections for all those involved in implementing the projects, including its own workforce as well as any contractors, subcontractors, or sub-awardees.

The county's agreement with AFSCME Local 1868 recognizes the union as the exclusive bargaining representative for employees in various job classifications covered under the contract. The bargaining units represented include clerical, secondary roads maintenance, custodial, maintenance, and paraprofessional and professional staff positions. The agreement affirms that salaries for Teamsters and AFSCME employees will be based on their respective union contracts. For non-bargaining employees, salaries are determined according to the pay policy approved by the Board of Supervisors.

Polk County's Human Resources department provides annual compensation statements to employees. These statements give information on total compensation including both direct pay and indirect benefits. Indirect benefits average between 19-23% depending on the employee's selections for benefits like single or family health insurance coverage and retirement plan contributions.

The county's best practices procurement manual requires that respondents to bids shall comply with the provisions of federal, state, and local laws and regulations to ensure that no employee or applicant for employment is discriminated against because of race, religion, color, sex, age, sexual orientation, gender identity, national origin, creed, genetic information, disability, veteran status, or military service. When requested, respondents must provide the county with reports required to ensure compliance with equal employment legislation and regulations. Respondents must ensure that all authorized sub-contractors comply with the provisions of the clause as well. A copy of the respondent's policy (or sub-contracted supplier's policy) must be made available to Polk County upon request. In accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Polk County notifies all bidders that any procurement conducted on behalf of the county affirmatively ensures that minority business enterprises will be afforded full opportunity to submit bids in response to an invitation and will not be discriminated against on the basis of any protected classification.

Under the current 2022-2027 collective bargaining agreement, AFSCME-covered employees were scheduled for a 4% general wage increase in July 2023. During budget discussions, the Board of Supervisors proactively raised it to 5% to match increases for non-bargaining employees and Teamsters-covered workers. Accordingly, Human Resources prepared a Memorandum of Understanding with AFSCME Local 1868, subject to Board approval, to implement the higher 5% adjustment contemplated for other groups.

6. PAST PERFORMANCE, REPORTING REQUIREMENTS, & STAFF EXPERTISE

Past Performance

Table 5 below details five government assistance projects - both federal and non-federal - that Polk County has started or completed in the past five years. These projects deal with the reconstruction of roadways, household weatherization for LIDAC residents, restoration of properties adjacent to military land, and general COVID-19 pandemic relief. Three projects have been completed and achieved targeted outcomes. Two projects are in progress and on track to meet expectations.

Table 5: Past Performance of Federal Grants

Project Title	Assistance Agreement Number if applicable	Funding Agency (federal or non-federal)	Assistance Listing Number (formerly CFDA) If applicable	Brief Description (no more than 2 sentences)	Contact from org that funded assistance agreement
Broadway Avenue Improvement Project	N/A	Federal Highway Administration (FHWA)	20.205	Reconstruction of a 5.2-mile roadway into a three-lane urban cross section. This includes a two-way left-turn lane down the center with a proposed underpass that will allow vehicles and trucks to pass freely under the busiest two rail crossings in the corridor.	Micah Loesch
DOE - Weatherization Assistance Program	DOE-23-20	Department of Energy passed through Iowa Department of Health & Human Services	81.042	Weatherization Assistance Program to make the homes of low-income residents more energy efficient, to reduce the clients' fuel bills and increase their comfort, and to improve the health and safety in homes by identifying and mitigating health and safety problems such as carbon monoxide, combustion appliance back-drafting and high indoor moisture levels.	Lorie Easter
Army Compatible Use Buffer Program (ACUB)	W9133L-23-2-5005	Federal (Dept. of Defense)	N/A	The Army National Guard supports local government partners to acquire interest in real estate from willing landowners to reduce the impacts of incompatible development on military training and improve installation resiliency.	Lucas Slings (lucas.a.slings.nfg@army.mil)
ARPA	N/A	Department of Treasury	21.023	Fight the pandemic and support families and businesses struggling with its public health and economic impacts. Maintain vital public services, even amid declines in revenue resulting from the crisis.	N/A
FEMA	FEMA-4483-DR-1A	Department of Homeland Security passed through Iowa Dept of Public Defense	97.036	FEMA relief for COVID 19	Jeff Krohn/Erin Tijerino

Reporting Requirements

Table 6 below details Polk County's history of adequately meeting reporting requirements to provide supporting documentation to the funding agencies for all five of these projects.

Table 6: Major Grants Reporting

Project Title	Discussion of how applicant was able to successfully complete & manage the listed agreements	Did the applicant submit acceptable interim or final reports under these agreements	The extent to which the applicant adequately & timely reported on its progress toward achieving the expected outputs & outcomes under those agreements	If progress was not being made, whether the applicant adequately reported why not.
Broadway Avenue Improvement Project	Still in progress. Utilizing Iowa DOT Farm-to-Market account and finance department.	Yes	Quarterly reports to FHWA.	N/A
DOE - Weatherization Assistance Program	Still in progress. Following the state standards for Weatherization using trained, competent staff and contractors.	Yes	Monthly reports to Iowa Department of Health & Human Services.	N/A
Army Compatible Use Buffer Program (ACUB)	Applicant successfully entered into a cooperative agreement with the Army National Guard Bureau (ANGB) to purchase and restore properties adjacent to Camp Dodge Joint Maneuver Training Center. Applicant actively worked with ANGB staff to complete and implement the agreement as properties come available for sale.	Yes	Applicant works closely with ANGB to complete all reporting requirements for this program. Applicant is fully up to date with reporting on all program activities at this time. Applicant has made progress towards achieving the goals outlined in the ACUB program proposal.	N/A
ARPA	Implemented several projects to assist the residents and businesses of Polk County with negative economic impacts, public health, and mental health. Provided funds by grant, direct payment or sub-recipient agreements.	Yes	Quarterly Reports to Treasury	N/A
FEMA	Implemented several projects to assist the residents of Polk County with COVID-19 impacts.	Yes	FEMA tracks all info in portal for each application. Polk County uploaded all necessary supporting documentation needed.	N/A

Staff Expertise

Polk County, Iowa is the largest county governing body in the state of Iowa. Various employees will contribute to the implementation of CPRG projects.

Allison van Pelt's role within this grant program will be to manage the project and carry out climate solutions to reduce greenhouse gas emissions. She was hired at Polk County as a Sustainability Planner specifically to manage this grant program. Overall, she has more than fifteen years of professional and academic experience advancing equitable community climate action and a refined history of activating multi-disciplinary coalitions with valuable and inclusive outcomes.

John Swanson's role within this grant program will be to manage the project and oversee the federal grant processes. He created Iowa's first county Water Resources Division, managed and fundraised the implementation of over \$30 million in projects from thirty-eight funding sources, managed a funding partnership between more than fifteen communities in over six years, and more.

Sean Bagniewski's role within this grant program will be to manage federal grant processes. As the county's Federal Grants Administrator, Sean manages applications for federal funding on county projects and ensures compliance with federal, state, and local regulations. As a licensed attorney, Sean will be a key asset to ensuring the success of this grant program.

Bret VandeLune's role within this grant program will be administrative. As the Director of Polk County, Iowa Public Works, Bret VandeLune plans, organizes, and oversees the overall administration and management of the department's divisions. He is responsible for determining major departmental policies, procedures, operational decisions, direction, evaluation, coordination, and planning for long term programs.

John Norris's role within this grant program will be administrative. He is currently serving as the County Administrator for Polk County. John has over three decades of policy and administrative experience at the highest levels of county, state, and federal government, including extensive experience on energy and agricultural issues.

Dave Williamson's serves Polk County as the Housing Services and Code Enforcement Manager. He performs administrative functions in developing local regulations, local codes, ordinances, policy, and procedures with each section. He also develops and administers budgets for housing programs, grant applications, and to state agencies.

Jennifer Green's role within this grant program will be through accounting. As an accountant at Polk County Public Works, she prepares and submits annual financial reports and reimbursement requests for local, state, and federal grants. She also directs managers in fiscal accountability while ensuring compliance with local, state and federal regulations.

Dominic Anania's role within this grant program will be performing the necessary legal duties. He has been a lawyer within the Civil Division at the Polk County Attorney's Office for over six years. In that role, the Polk County Board of Supervisors in complex property tax disputes, violations of county ordinances, review and drafting of county ordinances, and drafting and negotiating property and asset purchase agreements.

7. BUDGET

Table 7: Budget by Year

BUDGET BY YEAR						
CATEGORY TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
PERSONNEL	\$228,064	\$244,028	\$261,110	\$279,388	\$298,945	\$1,311,537
FRINGE BENEFITS	\$36,079	\$38,604	\$41,307	\$44,198	\$47,292	\$207,479
TRAVEL	\$0	\$0	\$0	\$0	\$0	\$0
EQUIPMENT	\$275,976	\$0	\$0	\$0	\$0	\$275,976
SUPPLIES	\$254,946	\$250,000	\$250,000	\$250,000	\$250,000	\$1,254,946
CONTRACTUAL	\$0	\$0	\$0	\$0	\$0	\$0
OTHER	\$9,271,974	\$9,271,974	\$9,271,974	\$9,271,974	\$9,271,974	\$46,359,870
DIRECT	\$10,067,039	\$9,804,607	\$9,824,391	\$9,845,560	\$9,868,211	\$49,409,808
INDIRECT	\$102,629	\$109,813	\$117,500	\$125,725	\$134,525	\$590,191
TOTAL FUNDING	\$10,169,668	\$9,914,419	\$9,941,891	\$9,971,285	\$10,002,737	\$49,999,999

Expenditure of Awarded Funds

Project Manager and the Lead Applicant Agency, Polk County, 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 Lead Agency 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 lead agency 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).

Further budget details including Budget Categories, Reasonableness of Cost, and more are located in *Budget_PolkCountyIA.doc* in the Project Narrative Packet.