

WORKPLAN

1. OVERALL PROJECT SUMMARY AND APPROACH

a. Description of GHG Reduction Measures

The City of Fargo recognizes the value of the EPA's Climate Pollution Reduction Grant (CPRG) funding as an opportunity to build community relationships and reduce greenhouse gas emissions (GHG) through energy efficient public infrastructure, all while setting the foundation for future climate resiliency projects throughout the City and the region. Based on community input, the State of North Dakota's Priority Climate Action Plan (PCAP) identified the upgrade of all non-LED street lights in the City of Fargo to LED light bulbs in the PCAP's GHG Reduction Measure #4. The proposed "Fargo LED Street Light Community Resilience Project" will encompass the replacement of all non-LED street light bulbs in the City of Fargo paired with strategic and intentional community engagement regarding community energy and climate-related goals. The financial savings created by the reduction in energy consumption from the LED bulbs will be placed into a Community Resilience Fund that the City will use to invest in other community-driven energy-related pilot projects, with an emphasis on addressing climate resiliency issues in low-income and disadvantaged communities (LIDAC). The City also plans to improve their energy efficiency through this project utilizing technology and software improvements to monitor energy usage; this information will inform future community-based projects.

With thoughtful community outreach, the prioritization of a strategic data collection plan, and the creation of a fund that captures savings from LED street light efficiencies, Fargo will use the CPRG funding to reduce their carbon footprint and pave the way for future efforts guided by community engagement.

Major Features: LED Street Light Replacement

Fargo has over 15,000 City-owned street lights, 3,889 of which are not currently LED light bulbs, that operate on a nightly basis and cover all streets within the City. The non-LED bulbs are over 12 years old and are high-pressure sodium bulbs that use over 60% more electricity to operate than efficient LED bulbs. The City selected this GHG Reduction Measure from the state's PCAP because both the City and the state recognize the quantifiable energy savings, and subsequent emissions savings, that will result from such a large-scale community-based effort. An update has been made since the state submitted their PCAP. The required number of bulb replacements is now estimated to be 3,889 rather than 7,000; this number was calculated in the subsequent weeks since the PCAP was submitted.

Major Features: Community Outreach

With nearly half of the City's street lights planned to be replaced through this project, many of Fargo's residents will be impacted by the work in some capacity; may it be by a traffic delay due to construction equipment or the unexpected presence of crews working in their neighborhood, the wide-scale nature of this project makes it very public-facing. According to the US Census, Fargo has a poverty rate of 13.3%, which is 16% higher than the statewide rate of 11.5%, and the BIPOC

residents make up 18.5% of the City's population.^{1,2} Fargo also encompasses 75 disadvantaged block groups from the EPA's IRA Disadvantage Communities based on the EJScreen mapping tool. A crucial, preliminary step in the development of the street light replacement project is to explore diverse community partnerships to establish effective project implementation and engage impacted communities on the LED energy efficiency project. By opening the lines of communication with communities through to the LED street light project, the City will set a foundation to build future climate resilience-focused relationships.

Tasks and Milestones: Community Outreach

City staff plans to host numerous neighborhood meetings, particularly in LIDAC communities that have historically had less input in infrastructure and energy decisions, to discuss their mission of improving City-wide energy-related projects and solicit feedback on how to best do so while meeting the needs of the community. Through this outreach, the community will be engaged in a way that the community has not been engaged before. The locations, timing, and advertising of these meetings will be determined with thoughtful, intercultural intentionality to ensure that communications about the work reach all of Fargo's residents, not just those who have previously had a say in large public infrastructure projects. In order to set these details, staff intend to collaborate with local leaders who understand how best to connect with residents of their communities.

The neighborhood meetings for this project will focus on the LED street light replacement project, while also discussing the overarching theme of improving local energy and infrastructure related projects that could result in GHG reductions. As such, staff intend to gather feedback from attendees that contains information on how best to structure and schedule the street light replacement project, as well as what future energy and GHG-reducing projects the community would like to pursue. The LED street light project will serve as a catalyst for the broader discussion of energy efficiency in the area, with the ultimate goal of growing strong community partnerships from the relationships established through the initial outreach.

Tasks and Milestones: LED Street Light Replacement

1. Develop construction and implementation plans

Based on the feedback collected through the neighborhood meetings, staff will develop the implementation and construction plans for the street light replacements, as well as capture the broader themes and visions of the community to guide potential future projects. The LED street light project will be executed over two years due to the sheer number of bulbs that need to be replaced. The City of Fargo Engineering Department's Engineering Services Division will oversee the LED street light project under the management of the City's Street Lighting Project Manager, who understands the inner workings of the City's street and traffic lighting. With multiple traffic engineers and engineering technicians on staff, the Engineering Services Division has the expertise and capacity to

¹ United States Census Bureau, "QuickFacts: Fargo city, North Dakota"
<https://www.census.gov/quickfacts/fact/table/fargocitynorthdakota/PST045222>

² United States Census Bureau, "QuickFacts: North Dakota"
[U.S. Census Bureau QuickFacts: North Carolina; Fargo city, North Dakota](https://www.census.gov/quickfacts/northdakota)

develop these plans internally. Plan preparation will take place during the end of 2024 and beginning of 2025 and will divide the project into two phases to align with the two-year project.

2. Bid Process

Upon completion of the plan, the City of Fargo City Commission will approve an “Advertisement for Bid” to any contractors interested in completing the light bulb replacements for the first phase of the project. The bid opening will occur in spring of 2025. Because the City is a governing body, the City Commission is obligated to award the project to the contractor with the lowest bid as long as they meet minimum requirements for experience, financial condition, and past work for the City.³ The contractor will then proceed with work in the spring, weather permitting, with the deadline of completing the first phase of the project by the end of the construction season, which is typically late fall.

3. Installation of LED Light Bulbs

The outreach-construct cycle will occur once more during the two-year period to ensure the completion of all both phases and the replacement of all light bulbs. Following both phases, the project manager will also collaborate with the contractor to take an inventory of the work completed and verify that all bulbs intended for that phase were replaced. In the case that any bulbs are excluded, the project manager will incorporate them into the plans for the following year. If this occurs during the second phase specifically, the project manager will place the remaining bulbs on a “punch list” that the contractor is expected to complete before they are released from their contract.

Major Features, Tasks, and Milestones: Reinvesting Saved Funds

This project will save public money through two avenues. First, the CPRG allows the City to retain money in the Municipal Street Lighting & Traffic Control Device Utility Fund, as this fund currently pays for the replacement of roughly 500 bulbs annually. These cost savings amount to a total estimated \$200,000 for the remaining 3,889 bulbs that need to be replaced. Additionally, the City will need to pay less to operate the light bulbs on a daily basis. With all street lights operating with LED bulbs, an anticipated \$125,000 will be saved annually from municipal energy spending.

City staff intend to establish a designated “Community Resilience Fund” sustained by the financial savings of the LED street lights. The fund would be reserved for community-guided projects that increase efficiency and reduce emissions, all while strengthening Fargo’s social fabric by developing stronger relationships between community and City. One example use of the Community Resilience Fund would be to build on the recently completed Kresge Foundation-funded program that facilitated investments in community groups through arts and culture. City staff and community group leaders could collaborate at the intersection of artistic expression and climate resilience to develop artwork that showcases their views on the benefits of and pathways to climate pollution reduction. Other uses of this fund could pertain to building efficiency improvements, pollinator garden installations, or public health resource outreach.

³ North Dakota Century Code, “Chapter 48-01.2: Public Improvement Bid and Contracts.”
<https://ndlegis.gov/cencode/t48c01-2.pdf>

Major Features: Tracking Energy Efficiency

Monitoring the energy conservation resulting from the replacement of light bulbs will entail a collaborative effort with Xcel Energy and Cass County Electric Cooperative, the two utility companies responsible for supplying electricity to Fargo's street lights. Presently, these utilities meter nearly all City street lights, furnishing staff with monthly energy consumption data. Both companies intend to sustain this data collection practice, offering energy usage information and aiding the city in its endeavors to enhance energy infrastructure. Nevertheless, for the city to effectively utilize this data in its pursuit of carbon emission reduction, it must be systematically tracked and managed within a software program, necessitating staff time and expertise. Appendix F contains letters of intent from Xcel Energy and Cass County Electric Cooperative that detail their intent to maintain a strong relationship with the City of Fargo and partner in this work.

Tasks and Milestones: Tracking Energy Efficiency

To ensure proper documentation of progress and meet reporting requirements, as well as lay the foundation for future energy-related efforts, the City plans to hire a part-time employee to gather and input data into the Energy Star Portfolio Manager, a program that monitors energy efficiency. The data reported from the Energy Star program will play a crucial role in monitoring changes in energy consumption, with the goal of reducing consumption as much as possible. Essentially, this individual will be responsible for linking meter data from the electric utility providers with each street light in the City to understand on a per-street light level how energy consumption decreases over time. Assessing this decrease is vital for the city to monitor its advancement and demonstrate effective outcomes in GHG emissions reductions. Replacing the 3,889 HPS bulbs with LED bulbs will decrease the bulbs' annual energy use by 64% - a savings of 1,383.3 MWh/yr for all 3,889 bulbs replaced.

The observed reductions in energy consumption and reports from the neighborhood outreach meetings will be compiled with any additional required materials for the semi-annual required reporting. Since data collection will be a foundational component of this project, the City will not have any issues meeting the reporting requirements for the CPRG.

Project Risks

Because the City has already been upgrading to LED bulbs at a much slower rate than proposed in this project for just over a decade, the engineering staff has experience with ways to mitigate potential risks. As such this project does not lend itself to many risks, but there are still a few that must be considered.

Some of the larger anticipated risks could pertain to the execution of the lighting retrofit project. For example, supply chain delays and poor weather conditions could postpone work, and staffing shortages and other unforeseen emergencies could create issues for maintaining labor for the project. However, these risks can be minimized with proper planning well in advance of the construction start date in spring of 2025. Supplies can be ordered months in advance of the beginning of work, allowing for materials to be shipped to the site. The phasing plan for the project will be determined with weather in mind – building in buffer days throughout in case weather postpones work by a few days. While unforeseen emergencies typically can't be predicted, an early

bid date during the first few months of 2024 will give the contractor proper time to compile sufficient staff support to execute the project.

Public opinion and the influence of social media pose a unique risk to this project. Inevitably, this work will spur dialogue amongst stakeholders who do not support the installation of LED street lights due to a variety of concerns including the color of the lights and their overall appearance. The platforms to share these opinions online only increases the magnitude of this risk. While there are concerns that these perspectives could potentially cast a shadow on the broader outreach planned with this project, these concerns are outweighed by the benefits that the outreach can create for the good of the community.

Through partnerships with local leaders, City staff, community representatives, and utility providers, the City of Fargo hopes the CPRG funding of the street light bulb replacement will kickstart progress towards more change. In alignment with the goals of the ND PCAP, staff is eager to pursue significant emissions reductions through decreased energy usage and build community relationships, while also setting an example for the immense benefits that can be created by a large-scale energy efficiency project.

b. Demonstration of Funding Need

Need for EPA CPRG Implementation Funding

Currently, the City of Fargo replaces street lights on an as-needed basis as lights burn out. This approach, while serving basic lighting and safety needs, does not allow the city to work more comprehensively to realize significant reductions in greenhouse gas emissions.

Fargo has the building blocks in place to take community engagement on climate pollution reduction to the next level. Given that North Dakota is a fossil-fuel producing state, discussing greenhouse gas emission and climate has been a sensitive subject. The City has taken care in how to approach these important issues in ways that don't alienate audiences. This grant will help us have additional resources for engagement to approach these conversations in an effective manner to meet the audiences where they are at. By having community input guide future energy efficiency work as well as the installation of LED street lights, we are strengthening the fabric of society and exploring climate pollution approaches that are beneficial for all citizens and avoid unintended consequences, especially those that can negatively impact historically disadvantaged communities.

There will also be a contractual arrangement between the City and a consultant to help execute the engagement work. This is primarily to bring on experience beyond the current capacity of City staff to develop creative outreach strategies and learn from industry best practices. By tapping into outside expertise, the City can augment their current capabilities, learn from what works in other communities, and expand their learnings which will benefit future projects.

Thanks to the work of the City's Sustainability and Resiliency Committee over the last few years, as well as the recent creation of a Diversity, Equity, and Inclusion Department, the City is primed to work with community and business partnerships in certain avenues, but there is still more work to be done. With the intent to spur future sustainability work within the City through community outreach efforts, the City will require the help of more staff to set up a program that makes future energy and climate work scalable, meaningful, and guided by the community. Resources specifically

for community engagement are very limited at the City today. This grant would provide the funds for that outreach along with associated partnership building, such as with utilities, businesses, and other community-based organizations. Furthermore, the City will pursue the help of a part-time employee that will not only help identify inefficiencies in the street lights but other energy loads as well, entering new and existing meters into energy tracking platforms already in use by the City. By identifying these problems, solutions can be identified to reduce inefficiencies and ultimately climate pollution.

Other Funding Streams and Sources

Other single funding opportunities listed in the White House BIL Guidebook⁴ and IRA⁵ do not offer the ability to pursue a concurrent approach to community engagement and community-wide energy efficiency like this grant does.

This project will leverage and dovetail other efforts in the works including the City's Energy Efficiency and Conservation Block Grant (EECBG) voucher application, which is focused on other energy efficiency measures. This application will not duplicate, but complement, the CPRG effort to reduce the City's overall greenhouse gas emissions portfolio.

c. Transformative Impact

The City of Fargo is not a typical "climate action" City. As the largest metropolitan area in a politically conservative, fossil fuel-producing state, this City has taken somewhat of a slower and more measured approach to addressing climate change. In 2019, the City reactivated the previous Renewable Energy and Conservation Committee to become the Sustainability and Resiliency Committee (SRC) that has been working on topics relating to climate resiliency, renewable energy, emissions reduction, energy efficiency, and environmental stewardship ever since. The group recently developed a high-level workplan to guide their efforts that identified additional reasons to advance decarbonization. Other initiatives from the SRC address impacts of flooding from the Red River, renewable energy installations on public facilities, and water use and treatment improvements. The SRC is one example of how the City of Fargo is making pragmatic and culturally sensitive strides to reduce their climate pollution.

Furthermore, this grant will also build on other local momentum such as due to the Fargo-Moorhead Metropolitan Commission of Governments (Metro COG) that serves as the metropolitan planning organization for the Fargo-Moorhead region; Metro COG is currently pursuing multiple transportation projects relating to greenhouse gas emission reduction. These efforts include a Safe Routes to School plan and an EV readiness study, both of which help reduce the amount of fossil fuel-dependent vehicles travel on their streets every day. Fargo's LED street light replacement project aligns with the regional goal of these and other projects pursued by Metro COG to reduce emissions.

Following the strides made with these broader efforts, the proposed project for Fargo represents tangible steps to encourage additional climate action in Fargo and the State of North Dakota. The

⁴ Available at: https://www.whitehouse.gov/wp-content/uploads/2024/02/Open-and-Upcoming-Infrastructure-Funding-Opportunities-Jan-30-2024_FINAL.pdf

⁵ Available at: <https://www.whitehouse.gov/cleanenergy/open-funding-opportunities/>

implementation of the LED street light upgrades would serve as an example of how actions to address climate can save public funds and improve the general welfare of the community, adding positive evidence to the often-negative argument around climate action. While LED light bulbs themselves are a simple change, they represent a much larger opportunity to transform the narrative around climate action. The LED street light project was selected as a focus area because it rose to the top based on community input gathered during the state's engagement while developing the ND PCAP. This grant will help the City have additional resources for engagement to approach these conversations in an effective manner and meet the audiences where they are at.

When viewing this project through the lens of environmental justice, the City sees the opportunity to set the foundation for lasting relationships with the leaders of Fargo's disadvantaged and low-income communities through this project's community outreach. Meetings about energy efficient light bulbs may not seem groundbreaking to neighborhood wellbeing and climate concerns, but they will open lines of communication that have previously been underutilized between City staff and local leadership, laying the groundwork to advance public health, economic development, and the resulting reduction in climate pollution. More importantly, staff hope to foster these relationships to ensure that these entities continue to have a voice in future decision-making processes. The building blocks are in place for success, in part because of the recent creation of a City Diversity, Equity and Inclusion Department.

2. IMPACT OF GHG REDUCTION MEASURES

a. Magnitude of GHG Reductions from 2025 through 2030

The project consists of one GHG reduction measure: upgrading the City's high-pressure sodium (HPS) street light bulbs to LED bulbs. HPS bulbs consume more electricity compared to LED bulbs; successful implementation of this project will decrease energy use of the bulbs by 64% and therefore reduce associated GHG emissions from energy generation. The detailed calculation for the cumulative emission reduction of the project (2025 through 2030) is shown in the Technical Appendix (Appendix B).

Cumulative emissions saved between 2025-2030: 1,322 MT CO₂e

As detailed in the Technical Appendix (Appendix B), the City can replace 500 bulbs per year under its 'business as usual' scenario. Under this baseline replacement schedule, the City would be able to replace its 3,889 HPS bulbs in 8 years. A successful implementation under CPRG funding would enable all HPS bulbs to be replaced in just 2 years. This expedited schedule results in a permanent reduction in cumulative GHG emissions because it phases out HPS bulb use much quicker than what the City's budget can currently support.

It is assumed that each LED street light supported directly by additional funding would last approximately 14 years before requiring replacement.⁶ This expected lifespan extends past the 8-year baseline implementation schedule; the cumulative GHG reduction estimate was not impacted by the 14-year lifespan.

⁶ Shenzhen EXC-LED Technology Co. 17 May 2022. "How Long do LED Street Lights Last?" Accessed March 2024. Retrieved from: <https://www.exc-streetlight.com/news/lighting-blogs/lifespan-about-led-street-lights.html>

b. Magnitude of GHG Reductions from 2025 through 2050

The project consists of one primary GHG reduction measure: upgrading the City's high-pressure sodium (HPS) street light bulbs to LED bulbs. It is important to note that the outreach resulting from this project is aimed at future GHG reductions, as guided by the community; however, the direct GHG reduction project in this grant is the LED bulb replacement. HPS bulbs consume more electricity compared to LED bulbs; successful implementation of this project will decrease energy use of the bulbs by 64% and therefore reduce associated GHG emissions from energy generation. The detailed calculation for the cumulative emission reduction of the project (2025 through 2050) is shown in the Technical Appendix (Appendix B).

Cumulative emissions saved 2025-2050: 1,359 MT CO₂e

As detailed in the Technical Appendix (Appendix B), the City is able to replace just 500 bulbs per year under its 'business as usual' scenario. Under this baseline replacement schedule, the City would be able to replace its 3,889 HPS bulbs in 8 years. A successful implementation under CPRG funding would enable all HPS bulbs to be replaced in just 2 years. This expedited schedule results in a permanent reduction in cumulative GHG emissions because it phases out HPS bulb use much quicker than what the City's budget can currently support. The baseline implementation schedule completes the project in 8 years, so there is no net annual GHG reductions after this point (as seen in Table 4 of Appendix B).

It is assumed that each LED street light supported directly by additional funding would last approximately 14 years before requiring replacement.⁶ This expected lifespan extends past the 8-year baseline implementation schedule; the cumulative GHG reduction estimate was not impacted by the 14-year lifespan.

c. Cost Effectiveness of GHG Reductions

The cost effectiveness of the GHG reduction measure was calculated by dividing the total CPRG implementation grant request by the cumulative GHG emission reductions (MT CO₂e) achieved from 2025 through 2030.

Total CPRG funding request: \$2,640,331

Cumulative emissions saved 2025-2030: 1,322 MT CO₂e

Cost effectiveness: \$1,998 per MT CO₂e

In addition to the project benefits of reducing GHG emissions, a successful project under CPRG funding will enable other cost benefits to the City's operations and the communities it serves.

In addition, under the baseline "business as usual" scenario, the City expects that operating its 3,889 HPS bulbs will cost roughly \$125,000 more per year compared to the scenario where all the HPS bulbs are replaced with more efficient LED bulbs. This cost savings calculation was informed by the estimated energy price (per the City) of \$0.09/kWh, and is detailed in the Technical Appendix (Appendix B). The City's operational energy budget is not anticipated to change as a result of these LED upgrades, so due to the increased energy efficiency, the City expects \$125,000 in annual savings that will be directed to the Community Resilience Fund.

Construction efficiencies are also enabled as a result of CPRG funding for the project. Under the baseline scenario, City staff would need to develop implementation and construction plans for street light replacement each year for 8 years. Staff would manage smaller-scale implementations of 500 bulb upgrades per year. However, under a condensed 2-year implementation schedule with dedicated CPRG funding, City staff and their chosen electrical contractor would be able to increase their relative prioritization of this utility upgrade, which will likely reduce costs in year-to-year management and planning compared to the baseline 8-year implementation schedule. Cost efficiencies also may be achieved through a reduction in annual construction mobilization needs and bulk ordering of materials, although these potential mobilization efficiencies were not modeled.

Utilizing the funding saved from these cost-efficiencies enabled by CPRG funding, the City will work to establish a “Community Resilience Fund”. The intent of this fund is to serve as a financial resource reserved for community-guided projects that increase energy efficiency and reduce emissions. Through CPRG-enabled benefits such as a Community Resilience Fund, the City anticipates the CPRG-funded street light project will kickstart progress towards emissions reductions in other sectors within the City. In alignment with the goals of the ND PCAP, staff is eager to pursue significant emissions reductions through decreased energy usage and build community relationships, while also setting an example for the immense benefits that can be created by a large-scale energy efficiency project.

d. Documentation of GHG Reduction Assumptions

The Technical Appendix (Appendix B) was created in accordance with Appendix C of the NOFO. It details the methods, models, key assumptions, related outputs, and individual calculations supporting GHG reduction estimates of the project. The technical analysis closely follows the methods used in the preparation of the ND PCAP, however as the project understanding increased and more information became available, some aspects of the analysis have been modified to present a more accurate estimation of GHG reductions. In addition, a GHG emission reduction calculation spreadsheet (Appendix D) is attached and provides specific, detailed calculations for the GHG reductions of the proposed measure.

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

a. Expected Outputs and Outcomes

The work proposed in this project adheres and aligns with the EPA’s Fiscal Year 2022-2026 Strategic Plan, by achieving Goal 1, “Tackle the Climate Crisis” by taking direct and necessary measures to address and make progress on the City’s GHG emissions, and Objective 1.1, “Reduce Emissions that Cause Climate Change”, by reducing the GHG emissions directly caused by less efficient lighting across the community in a timely and essential manner.

Outputs, or an environmental activity, effort, or associated work product resulting from this implementation grant include:

- Number of equipment installations (LED light bulbs and poles, if necessary) until all lighting is replaced with LED bulbs
- New community resilience fund for community engagement & sustainability work

- Part-time employee to implement GHG reduction measures through gathering and tracking street light energy efficiency data citywide
- The City will have a more active community engagement role
- Progress reports
- Final report

Outcomes, or the result, effect, or consequence that will occur from this implementation grant include:

- From 2025 through 2030, 1,322 MT CO₂e of cumulative emissions will be saved
- From 2025 through 2050, 1,359 MT CO₂e of cumulative emissions will be saved
- Lower energy demand and utility energy expenditures
- Reduced temperatures in existing heat islands from non-LED bulbs
- Increased staff capacity to implement and reduce GHG reduction measures
- Enhanced level of community engagement, measured by an increased number of ongoing actions, meetings, and events to engage with organizations and residents that live in identified LIDAC areas
- The development of a new Community Resilience Fund from project savings
- Increased resilience to climate change impacts as measured by replacing 100% of non-LED street lights with LED bulbs

b. Performance Measures and Plan

The City's Finance Manager will oversee all spending and reporting associated with the CPRG. They will work with the program staff and ensure the compilation of reports from the Communications and Engineering Departments and formatting of materials meets the periodic reporting requirements.

Tracking and Reporting: Community Outreach

Both qualitative and quantitative metrics will be monitored and reported on to ensure grant goals are met. Neighborhood meetings will be structured to allow for the collection of participant data whenever possible. For example, one tactic could be to use a map with push pins that would be posted for residents to indicate where they live. If staff chooses to use an online survey format to gather feedback from attendees, the form will request demographic data from the participant. Following each meeting, this information will be entered into a report that will summarize the demographics of participants for all community outreach meetings. This report will also include a summary of materials (flyers, PowerPoint slides, etc.) that are used during the neighborhood meetings. As staff build relationships with community leaders through this outreach, they will develop a bench of individuals to collaborate with for input on future environmental justice and energy-related projects. The size and makeup of these engaged stakeholders will be described both quantitatively and qualitatively in the reporting.

Tracking and Reporting: LED Street Light Replacements and Emission Reductions

The street light meter data as well as the information tracked in the Energy Star program will aid in monitoring the reduction in energy consumption from the street lights. The part-time position supported by grant funds will ensure that data is tracked to further support these efforts and that

the City is prepared to meet all reporting requirements for the reduction of GHG emissions from energy. Program personnel will use the model outlined in Section 2 and the meter data provided by the electric utilities to calculate the GHG emissions that originate from the street light energy consumption to include in all reporting.

Performance progress for the implementation of the LED street light replacements will follow the designated phasing plan that will be closely monitored by the City's Engineering Technician. Beyond consistent communication with the contractor to monitor progress, staff will also track the quantity of light bulbs being installed throughout each phase of the project.

At the end of the first phase, which aligns with each construction season, the City Engineering Technician will take an inventory of whether all light bulb replacements were replaced during their planned phase. If a bulb or area of bulbs were not addressed in the first phase, the City's Engineering Technician will ensure that the outstanding replacements are incorporated into the second phase. If this occurs during the second phase, the Engineering Technician will hold the maintenance bond for the project until the remaining bulbs have been replaced.

Tracking and Reporting: Reinvesting Saved Funds

Another important metric to be tracked and reported are the financial savings created by the LED street lights, as well as how those funds are used for other pilot projects. The City will monitor changes in their electric bills from both Xcel Energy and Cass County Electric Coop to calculate their savings. The balance of the Community Resilience Fund will be included in reporting along with any discussions or decisions made regarding uses of that fund. A description of the community-based ideas that are generated through programmatic outreach will be summarized in the report.

c. Authorities, Implementation Timeline, and Milestones

Roles and Responsibilities

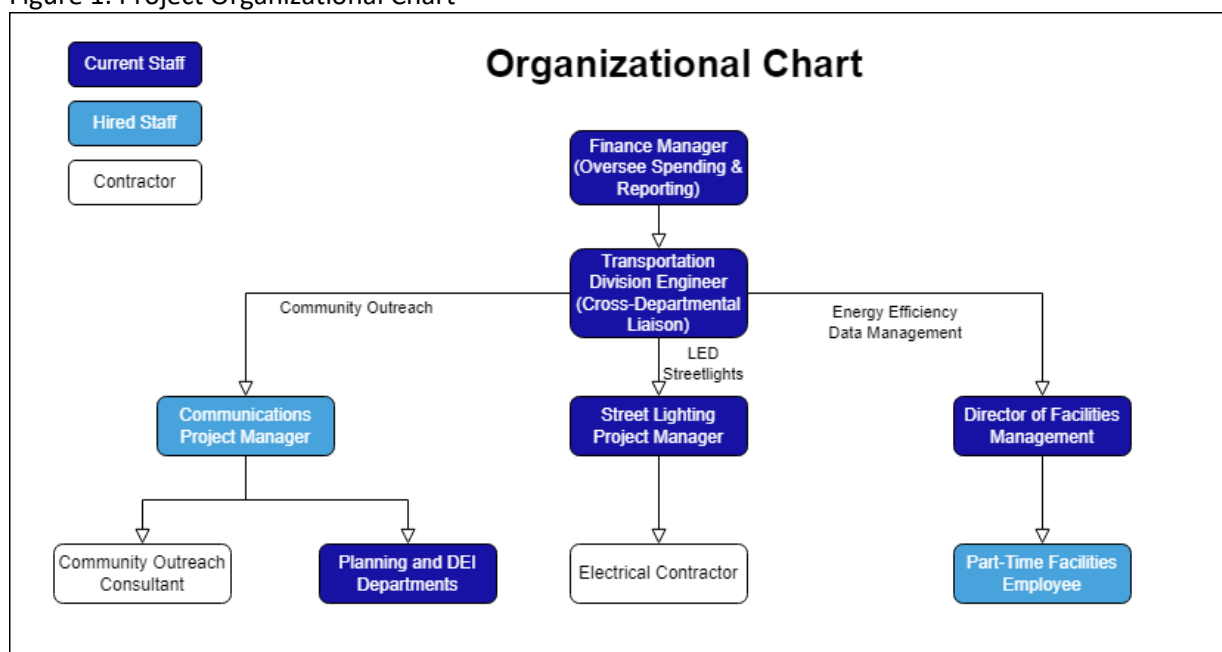
The Finance Manager will manage the spending and reporting for all departments active within the project. The Transportation Division Engineer will serve as a cross-departmental liaison for the project, but will primarily oversee activities relating to the LED street light replacement. This individual will not be responsible for managing any work for outreach or facilities; rather, they will act as a communication bridge between departments throughout the duration of the project.

The Communications Department will oversee the hiring of a Communications Project Manager, who will work with the consultant to perform outreach for this project that aligns with the City's goals. Other departments such as DEI, Planning, and Engineering Services will take part in the wider community engagement as needed. The Engineering Services Division under the project management of the Engineering Technician will develop the plans for the project and oversee the hiring of an electrical contractor to execute the project. This division will also conduct periodic construction inspections and monitor the progress of the project. The Facilities Department, under the guidance of the Director of Facilities Management, will oversee the data tracking and hire a part-time employee who will support this work. See Figure 1 for a Project Organizational Chart.

The success of this project as part of the broader mission to improve the dialogue around climate action in Fargo is largely dependent on engagement from residents and business owners in the

neighborhood meetings. Staff will collaborate with the outreach-focused personnel to make these meetings as inviting as possible, including working to bridge intercultural differences to make community-based meetings as welcoming and engaging as possible.

Figure 1. Project Organizational Chart



Authorities

The City Commission has the authority to approve the street light project. With approval from Commission, staff have the authority to hire contractor/consultants, conduct outreach, and complete construction. In order to collect energy usage data from the LED street lights, the Engineering Services Division will partner with Xcel Energy and Cass County Electric Co-op who control the electric meters for the City's street lights. The Facilities Department has authority to use the energy efficiency software to gather data, monitor energy efficiency, and work with other departments to make recommendations. Documents such as utility bills will be gathered and shared with program staff who will have the authority to review those documents.

Detailed Implementation Timeline

The following table outlines the timeline of major milestones throughout the duration of the project, with semi-annual and final reporting highlighted in grey. Note that all Communications Department activities will be overseen by the Communications Project Manager and supported by the Public Outreach Consultant and Support Staff:

Timeframe	Engineering Services Division	Communications Department
Oct 2024 (or immediately)	Attain City Commission approval to accept the CPRG, proceed with the preparation of project plans, and hire a community outreach and energy efficiency data management personnel	

following funds disbursement)		
Oct-Nov 2024	Develop preliminary construction plans and phasing plan	Create strategic engagement plan that focuses on LIDAC and combines LED street light communications with the broader theme of climate action; Collaborate with community leaders to identify effective outreach strategies
Dec 2024-Mar 2025	Finalize plans; attain City Commission approval to advertise the project for bidding	Conduct outreach and report project-specific feedback to the Engineering Services Division prior to plan finalization
Mar-Apr 2025	Host bid opening and identify the lowest eligible bidder for the project; attain City Commission approval to award the project to the lowest eligible bidder	Develop a workplan to engage the community on climate action and resiliency in Fargo; implement workplan by leveraging current relationships with community-based organizations and explores potential new partnerships with others that have had less of a voice.
Apr-Oct 2025	Monitor construction progress by contractor for phase one work; collaborate with utility companies to provide data to Facilities Department to add to Energy Star software	
Jun 2025	Compile report detailing construction progress, observed energy usage and emissions reductions for street lights, and progress with adding street light data to the Energy Star software	Compile report detailing community engagement information including demographics of participants (with LIDAC data), materials shared, and feedback received.
July-October	Report on interim progress to Fargo Sustainability and Resiliency Committee	Report on interim progress to Fargo Sustainability and Resiliency Committee
Oct 2025-Apr 2026	Collaborate with the contractor to adjust phase two construction plan as needed based on phase one progress; collaborate with utility companies to provide data to Facilities Department to add to Energy Star software	Collaborate with Finance Department to establish the Community Resilience Fund using saved funds from energy and construction; engage community leaders to identify meaningful applications of this fund
Dec 2025	Compile report detailing construction progress, observed energy usage and emissions reductions for street lights,	Compile report detailing continued community engagement efforts, especially those pertaining to the

	and progress with adding street light data to the Energy Star software	Community Resilience Fund, as well as the balance of the Community Resilience Fund
Apr-Oct 2026	Monitor construction progress by contractor for phase two work; collaborate with utility companies to provide data to Facilities Department to add to Energy Star software	Continue efforts to communicate with the community about climate action project and opportunities; move new savings to Community Resilience Fund
Jun 2026	Compile report detailing construction progress, observed energy usage and emissions reductions for street lights, and progress with adding street light data to the Energy Star software	Compile report detailing continued community engagement efforts, especially those pertaining to the Community Resilience Fund, as well as the balance of the Community Resilience Fund
Oct-Dec 2026	Create a “punch list” for any remaining work to be completed by the contractor	Monitor the Community Resilience Fund to ensure it’s being used appropriately; continue building community partnerships for future work in the realm of climate action and energy efficiency
Dec 2026	Compile report detailing construction progress, observed energy usage and emissions reductions for street lights, and progress with adding street light data to the Energy Star software	Compile report detailing continued community engagement efforts, especially those pertaining to the Community Resilience Fund, as well as the balance of the Community Resilience Fund
Jan-Jun 2027	Ensure completion of all punch list items prior to releasing the contractor from their contract	Continue efforts to communicate with the community about future climate action projects and opportunities; prepare materials for final reporting
Jun 2027	Complete all final CPRG reporting requirements Because the Communications Project Manager’s contract only extends 2.5 years and will end before final reporting, they will ensure that all proper reporting materials pertaining to community outreach are prepared prior to their departure. Additionally, they will familiarize other staff in the Communications Department with their work in the case that additional reporting requirements need to be met following the end of their contract.	

4. LOW-INCOME AND DISADVANTAGED COMMUNITIES

a. Community Benefits

The proposed project would impact nearly every neighborhood within the City of Fargo which means that all EPA IRA Disadvantage Communities within the City will see benefits from installation of LED street lights.

Expected Benefits to Low-Income and Disadvantaged Communities

1. Reduced GHG Emissions and Co-pollutants

In addition to the many benefits of community outreach as a tool to guide solutions to reduce climate pollution, one of the most tangible benefits of the replacement of all non-LED light bulbs is to reduce energy consumption, which in turn reduces the GHG emissions from energy generation throughout the state and region. Air quality and public health will benefit, along with other direct and indirect benefits. Recreation enthusiasts as well as North Dakota's diverse flora and fauna will breathe cleaner air and drink purer water with the reduced emissions.

By reducing energy use from purchased power, which in part comes from fossil-fuel powered energy generation, there's also a reduction in the release of SOX, NOX, particulates, and other pollutants resulting from coal and natural gas fired power plants. The adverse public health effects of air pollution downstream are severe, encompassing exacerbation of asthma, cardiovascular diseases, adverse birth outcomes such as low birthweight and premature delivery, as well as increased visits to emergency rooms, hospitalizations, and fatalities. Any decrease in fossil fuel extraction or energy consumption leads to enhanced air quality and better public health outcomes for the whole region. The replacement of City-wide bulbs is not solely a mitigation measure by avoiding GHG emissions, but also a climate adaptation project.

2. Community Engagement and Feedback

A cornerstone of this project is increasing dialogue around energy-related infrastructure improvements to strengthen relationships and open up new lines of communication with communities who have not previously been included in these types of conversations. Through the neighborhood outreach spearheaded due to the street light replacement project, City staff hope to invent new pathways for these community-driven conversations in the City of Fargo.

3. Improved Public Safety and Reduced Heat Island Effect

The statewide PCAP discusses additional benefits of the LED street light replacements as they relate to LIDAC communities. One benefit is the improved brightness of streets and neighborhoods, which in turn improves public safety throughout the City. LED bulbs also emit very little heat especially compared to their older counterparts, which has the potential to reduce urban heat island effects during the warmer months of the year.

4. Incorporation of Cost Savings into a Community Resilience Fund

An exciting outcome of this project will be the availability of roughly \$200,000 upfront and \$125,000 annually in the budget that would have previously been spent on construction and energy costs for the street lights. In order to benefit LIDAC and advance environmental justice in Fargo through this project (see information on impacted block groups below), the City has an innovative plan to enact

positive change with the freed-up funds. Fargo will create a “Community Resilience Fund” based on calculated street light retrofit savings; these funds will be used for future community-driven energy-related and emission reduction projects. In collaboration with community leaders, staff will identify critical local issues and develop an action plan to use the Community Resilience Fund to address these issues.

Ultimately, staff will utilize community input to inform decisions on how to use this funding. They will gather feedback on the most effective ways to utilize the available funds in ways that are beneficial for LIDAC communities. Staff recognizes Fargo’s LIDAC communities have unique needs that may not have previously had the opportunity to share with City leaders, so community input will be an important factor in the creation of approaches moving forward.

Some potential ideas for use of the Community Resilience Fund that could be discussed with stakeholders include making building efficiency improvements, installing pollinator gardens, designing murals depicting the community vision for climate resilience, or conducting public health resource outreach. The funds could also facilitate investments in community groups through arts and culture, and placemaking efforts that relate back to the themes of climate action. Other efforts could include weatherization efforts to reduce residential energy burden in low-income households.

EPA’s EJScreen Census Block Group IDs

This project impacts all Census Block Groups within the City of Fargo. See Appendix E for a complete list of the Group IDs exported from the EPA’s EJScreen. Data was exported from the North Dakota Department of Environmental Quality’s (ND-DEQ) Low Income Disadvantaged Communities dataset. Only disadvantaged Census Block Groups within Fargo City limits were included. The ND-DEQ dataset defined disadvantaged Block Groups as any that meet any of the following criteria: those defined as disadvantaged in CEJST, those at or above the 90th percentile for any of EJScreen’s supplemental indexes when compared to the nation or state, or those within tribal lands, as identified in the EJScreen.

Assessment, Quantification, and Reporting of Community Benefits

As described in Section 3.b, the project manager will collaborate with Xcel Energy and Cass County Cooperative to track the energy savings from the replacement of all street light bulbs with LEDs. With this data, the project manager will use the model described in Section 2 to determine the regional emission reductions that result from this improvement. It is estimated that replacing the 3,889 HPS bulbs with LED bulbs will decrease the bulbs’ annual energy use by 64%, resulting in GHG emissions reductions of 1,322 MT CO₂e between 2025 and 2030, and 1,359 MT CO₂e between 2025 and 2050.

Based on the observed reductions in energy consumption, the City will calculate the monthly cost savings and reserve that money for the Community Resilience Fund. The balance of this fund, as well as decisions made regarding its use, will be included in all semi-annual and final reporting along with the regional emission reductions. Included also will be a summary of outreach communications to LIDAC community leaders and the explanation of the decision-making processes.

b. Community Engagement

Incorporation of Input from Low-Income and Disadvantaged Communities

The LED street light project was selected as the focus of this application because it had been identified as a top issue during community engagement efforts during the state's development of the ND PCAP. As the North Dakota Priority Climate Action Plan was being developed, the state hosted multiple Sustainability Input Forums to collect stakeholder feedback before identifying the most relevant GHG Reduction Measures statewide. According to the state's report on these forums, 33 Fargo-area residents attended the events and provided input. Based on participant records for the two rounds of outreach conducted statewide, typically between 5-10% of attendees were from LIDAC communities. During development of this application, City staff met with leaders in the North Dakota Department of Environmental Quality, who were involved with writing the PCAP, to gather input from their outreach to LIDAC and refine best practices for future outreach. Staff also met with peers who work with community groups to identify potential partners and community-based organizations that could be involved with the project outreach.

Meaningful Engagement of Low-Income and Disadvantaged Communities During Implementation of Proposed Project

Intentional community outreach, particularly with Fargo's LIDAC, is a key pillar of this project. Staff plans to engage the community on both the LED street light replacement project, as well as wider conversation of other future climate action opportunities. In order to set details such as the time and location of these meetings, staff intend to collaborate with local leaders who understand how best to connect with residents of their communities. Multiple of these meetings will be held in Fargo's LIDAC neighborhoods, which will create the space to discuss upcoming work being completed with the CPRG funding in the broader context of energy efficiency in public infrastructure. These conversations could also include information about building efficiency projects if the City receives the EECBG that they are also currently applying for. Although not exhaustive, some initial ideas include churches and other religious spaces, the North Dakota State University campus, local farmer's markets and street fairs, and Fargo Public Schools. At these meetings, City staff will use plain language to share project details and listen to feedback from community members. Because these meetings will occur prior to the beginning of construction, staff will have the opportunity to adjust work details such as scheduling, and work impacts based on the feedback they receive.

In addition to discussing the project details at these neighborhood meetings, the City intends to open up a much broader conversation with residents regarding future energy-related projects to identify specific community needs. Historically, LIDAC neighborhoods have been excluded from these conversations, so staff plans to target their outreach efforts on meaningful communication with these communities. These neighborhood meetings, regardless of if they are for the CPRG grant project alone or for the EECBG and CPRG projects together, will create the foundation for increased community dialogue around energy-related infrastructure improvements.

5. JOB QUALITY

Community Impacts

The nature of this project as a community-driven effort to reduce climate pollution, specifically with a central public infrastructure improvement, creates fertile ground for all of Fargo residents and businesses to learn more about climate action, share the goals they have for their community and contribute to the development of future projects. Through seeding these resiliency conversations in the community, workforce development will be enhanced by exposing more community members to these issues, building their capacity, and giving them experience that they can leverage in the future to gain better paying and higher quality jobs. The pursuit of future climate action projects that will hopefully be spurred by this street light project can contribute to modernizing and diversifying the workforce in Fargo. Labor could be needed to support efforts such as building weatherization, renewable installations, and EV charging infrastructure, which will add meaningful employment opportunities throughout the City.

Construction Labor

The fact that the LED street light retrofit is a public infrastructure project ensures that proper labor standards are met by the contractor. State law requires that any public improvement project over \$200,000 be competitively advertised for bid to any contractor interested in pursuing the work.⁷ At the time of bidding, only eligible contractors may bid on the project. Eligibility is partially determined by whether the contractor complies with Davis-Bacon Act, which requires that all contractors working on federally funded projects pay their employees prevailing wages.⁸ Other minimum requirements for contractors planning to bid on the project include experience, financial condition, and past work for the City.⁷ This competitive bidding practice ensures that contractors aren't hiring people at unfair wages or requiring employees to work unreasonable hours to complete the project.

Outreach Personnel

Similarly, the outreach consultant hired to help coordinate the neighborhood meetings and establish community partnerships will be expected to comply with high labor standards. Personnel engaged to lead the community-based work will follow all hiring standards and regulations, and seek to advance best practices such as promoting the roles with LIDAC communities and other impacted stakeholders who have had less of a voice in community dialogs. The consultant costs will surpass the federal competitive bidding threshold of \$100,000, so they will be held to the same standards listed above.

City Staff

For City staff who will engage in this project, Fargo has a long record of paying competitive wages and providing an enriching work environment for all City employees. All individuals who contribute to this project will be in a role held to strong labor standards and aligning with a highly skilled workforce, including the proposed part-time data management role. The DEI Department is increasingly contributing to hiring and recruitment best practices, which will assist in advancing job quality.

⁷ North Dakota Century Code, "Chapter 48-01.2: Public Improvement Bid and Contracts."

<https://ndlegis.gov/cencode/t48c01-2.pdf>

⁸ U.S. Department of Labor, "Davis-Bacon and Related Acts." <https://www.dol.gov/agencies/whd/government-contracts/construction>.

6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

a. Past Performance

Within the last five years, the City of Fargo has successfully managed a multitude of federal assistance agreements ranging from a few hundred thousand dollars to upwards of \$20 million. The following examples demonstrate this successful management.

Project Title: Coronavirus State and Local Fiscal Recovery Funds (2021)

Program Award Amount: \$20,205,034.00

Assistance Agreement Number: N/A

Federal Agency & Listing Number: US Department of the Treasury, 21.027

Brief Description: The Coronavirus State and Local Fiscal Recovery Funds (SLFRF) program authorized by the American Rescue Plan Act delivered \$350 billion to state, territorial, local, and Tribal governments across the country to support their response to and recovery from the COVID-19 public health emergency. The City of Fargo oversaw the spending of \$20 Million ARPA dollars.

Organization Contact: US Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220
T: 202-622-2000

Project Title: Federal Transit Formula Grants - Operating 5307 (2021)

Program Award Amount: \$2,602,232.00

Assistance Agreement Number: ND2021-006-000

Federal Agency & Listing Number: Federal Transit Administration, 20.507

Brief Description: The Urbanized Area Formula Funding program (49 U.S.C. 5307) makes federal resources available to governors and other recipients for transit capital and operating assistance and transportation-related planning in urbanized areas. The City uses funds to pay for eligible activities include: planning, capital investments in bus and bus-related activities, maintenance and passenger facilities. This program requires FFRs, MPRs, and the completion of the annual NTD report.

Organization Contact: Federal Transit Administration - Byron Rogers Federal Building
Cindy Terwilliger - FTA Region 8 Administrator
1961 Stout Street - Suite 13-301
Denver, CO 80294
T: 303-362-2400

Project Title: Coronavirus Emergency Supplemental Funding Program (2020)

Program Award Amount: \$195,828.00

Assistance Agreement Number: 2020-VD-BX-0167

Federal Agency & Listing Number: US Department of Justice, 16.034

Brief Description: The CESF program provided funding to assist eligible units of local government in preventing, preparing for, and responding to the coronavirus. Allowable projects and purchases include, but are not

limited to, overtime, equipment (including law enforcement and medical personal protective equipment), hiring, supplies (such as gloves, masks, sanitizer), training, travel and expenses.

Organization Contact: US Department of Justice
Heather Wiley
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001
T: 202-514-2000

Project Title: HUD - CDBG Entitlement - FY 23-24 (2023)

Program Award Amount: \$840,957.00

Assistance Agreement Number: B-23-MC-38-0001

Federal Agency & Listing Number: US Department of Housing and Urban Development, 14.218

Brief Description: The Community Development Block Grant (CDBG) Entitlement Program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.

Organization Contact: US Department of Housing and Urban Development
Noemi Ghirghi, CPD Director
451 7th Street, S.W.
Washington, DC 20410
T: 202-708-1112

Project Title: HUD – HOME Investment Partnership Program (2023)

Program Award Amount: \$549,768.00

Assistance Agreement Number: M-23-MC-38-0220

Federal Agency & Listing Number: US Department of Housing and Urban Development, 14.239

Brief Description: The HOME Investment Partnerships Program (HOME) provides formula grants to states and localities that communities use - often in partnership with local nonprofit groups - to fund a wide range of activities including building, buying, and/or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income people. HOME is the largest federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. HOME funds are awarded annually as formula grants to participating jurisdictions (PJs).

Organization Contact: US Department of Housing and Urban Development
Noemi Ghirghi, CPD Director
451 7th Street, S.W.
Washington, DC 20410
T: 202-708-1112

For each of the outlined assistance agreements, the City of Fargo properly managed and completed the requirements of the agreement through timely reporting from staff and strong oversight from the City's Federal Grant Manager. This individual, with support from staff in multiple departments,

ensured that all required materials were submitted within the allotted timeframe to remain in compliance with the expectations of each assistance agreement.

b. Reporting Requirements

City staff at the City have the experience to meet all reporting requirements. The City has been compliant with all reporting and performance guidelines of the following programs.

While utilizing the Coronavirus State and Local Fiscal Recovery Funds, the City was responsible for completing quarterly interim reports that detailed spend by project in the appropriate expenditure category. The City has submitted all reports within 30 days of quarter end as required by the Final Rule.

During the time in which the City received funding from the Federal Transit Formula Grants - Operating 5307, the City was responsible for completing quarterly interim reports (Performance Progress Reports) that detail project spend and a status narrative. The City has submitted all reports within 30 days of quarter end as required by the program agreement. The City completes a triennial review with FTA where recipient performance is monitored.

When the City used funds from the Coronavirus Emergency Supplemental Funding Program, the program required quarterly Federal Financial Reports (FFR) and ongoing contact with federal grant administrators through the Covid-19 mitigation process, both of which were maintained through the course of the program.

The HUD - CDBG entitlement - FY 23-24 and HUD – HOME Investment Partnership programs require detailed reporting of both financial status and performance in IDIS. Staff currently upholds these requirements and plans to do so for the duration of the programs.

For each of the assistance agreements listed above as well as any other assistance agreements that the City of Fargo has entered or will enter in the future, staff at the City have the knowledge required and demonstrated experience needed to monitor for allowable costs and tracking activity.

c. Staff Expertise

With cross-functional support from in-house expertise across many departments and program areas, external contractors and consultants, and guidance from the Fargo Sustainability & Resiliency Committee, Fargo has a well-rounded team with robust expertise to successfully execute this project.

Funds Management

The City's Finance Department has significant experience in managing grant funding. The Finance Office will ensure that all receipts are properly recorded and that only allowable costs are charged to this program budget. In addition, Finance will ensure that the appropriate City staff are completing reporting to the awarding agency as required by the grant agreement. Wyatt Papenfuss, the Finance Manager, will serve as the payee for the CPRG. Wyatt has experience in governmental accounting, working with federal funds, and maintaining compliance with program requirements. The City of Fargo has over one hundred active grants, including both direct and indirect awards.

Wyatt and his team are responsible for preparing the annual Schedule of Expenditures and supporting the Federal Single Audit process. Because of this, the department maintains the skills, knowledge, and expertise required to assist in the oversight and spending of federal funds.

Community Outreach

The Communications Department currently oversees a variety of community outreach activities. Building on this institutional knowledge and assets, including relationships with community-based groups, the City will leverage these strengths to grow their outreach into the realm of climate resilience. Between consultants and staff, the City will oversee the outreach for the program. With decades of experience engaging with residents and communicating about projects, the cross-functional team is well-equipped to develop effective engagement strategies and communicate with residents about both the proposed project and the broader themes of climate action. Furthermore, a key role for the outreach-related personnel for this program will be to tap into the wealth of knowledge in the community; as the state's outreach for their application demonstrated, Fargo has a robust network of organizations that will contribute to the success of this program.

LED Street Light Replacement

For the specifics of the LED street light retrofit, the Engineering Services Division has been conducting similar projects to this LED street light replacement, just at a smaller scale, for over a decade. Since 2012, the City of Fargo has been installing LED fixtures with all new street projects and since 2017, the City has been replacing the existing high pressure sodium street lighting bulbs with LED retrofit bulbs. The project team under the leadership of the project manager plans to apply this relevant experience throughout plan development and execution.

The project manager for the LED street light replacement project will be Dave Helland, the City's Street Lighting Project Manager. Dave has worked for the City of Fargo for nearly 30 years as the technical lead for all street lighting projects. His primary roles have been designing projects in-house and reviewing the design of consultants for City street projects. For the LED street light replacement project, Dave will conduct the project design and complete field inspection as construction proceeds. He will also finalize the construction project and calculate the final pay estimate to the contractor.

Jeremy Gorden, a Transportation Division Engineer with 20 years of experience with the City of Fargo, will oversee design staff during plan development, stamp the design plans, and manage inspection staff as the project transitions into the construction phase. Jeremy has been managing the Signals and Lighting Department for 20 years and is responsible for new installations as well as replacement projects. Jeremy will also serve as the communication liaison between departments throughout the duration of the project.

Contractors

The Communications Department and the Engineering Services Division both anticipate a competitive pool of interested companies for the contractual portions of the project. The City has already worked with multiple community outreach consultants on previous projects who have the qualifications and expertise to perform the necessary work, so the Communications Department does not foresee any issues receiving bids from a quality consultant. Based on previously-bid

projects, the Engineering Services Division expects to receive multiple competitive bids from electrical contractors in the area.

Facilities Management

The Facilities Management Department recently began using the Energy Star software to monitor energy efficiency in public infrastructure. The Part-Time Data Management staff person will be housed in Facilities Management. Bekki Majerus, Director of Facilities Management, has been a professional with facilities management roles for almost 20 years. Bekki, alongside other Facilities Department staff, will oversee the initial training and overall management of this part-time individual. The department feels confident that by the time they hire the part-time employee who will assist with data management in the Energy Star software, staff will have the necessary expertise to properly train the individual on how to operate the software.

7. BUDGET

a. Budget Detail

This project proposes the mission of using LED street light replacements as the catalyst for improved conversations and action around climate resilience in Fargo. Such an impactful mission cannot be accomplished without strong community partnerships, support of contractors to augment and build skills, and collaboration with outside experts. The expenses proposed in this budget not only ensure the proper execution of the LED street light replacements, but also build capacity in-house and support the strategic community outreach that will set the stage for future resiliency projects throughout the City.

Appendix A, the Budget Narrative explains the funding requests as they pertain to the GHG Measures outlined in this application. For more information on how these values were calculated, please review Appendix C, the Budget Spreadsheet.

b. Expenditure of Awarded Funds

The City is eager to begin the work for this project and intends to begin community outreach and plan development as soon as the funds disperse. The cross-departmental funds management proposed for this project ensures that the awarded funds are spent appropriately and spent in a timely manner. The Finance Manager will oversee all spending and reporting, which will allow him to have a strong understanding of the requirements of the project and ensure that all other staff align with these requirements. The Transportation Division Engineer will oversee the spending for community outreach and street light costs as the overarching project manager. Under the guidance of this individual, the Street Lighting Project Manager will monitor all construction spending. Similarly, the Communications Project Manager will ensure the proper expenditure of their allocated funds. The Facilities Department will use the funds they are awarded to compensate the part-time staff as intended.

If the project experiences a delay due to supply chain issues or other unforeseen risks, the Transportation Division Engineer will work closely with whichever project leader is experiencing the delay to resolve the issue as soon as possible. If necessary, they will work with the Finance Manager

to meet any reporting requirements specifically pertaining to a delay of spending. The City will ensure that all activity takes place in the period of performance.

c. Reasonableness of Costs

The City believes that the proposed actions are the most cost-effective way to execute the LED street light project while also adequately supporting community engagement efforts. The City plans to solicit competitive bids for both the electrical contractor and the outreach consultant, which will ensure that the least-expensive, qualified contractor can serve in their designated role.

All additional costs are considered necessary and crucial to the overall success of this project. For communications, project management, and outreach, hiring and contracting practices will follow City procurement and hiring guidelines.

Appendix A, the Budget Narrative, includes a breakdown of personnel, fringe benefits, contractual costs, travel, equipment, supplies, and total costs. These items are summarized here as well as how they related to specific emission reduction activities.

- Personnel Total = \$226,497
 - Communications Project Manager - \$191,834
 - 1 FTE at \$74,922/yr
 - 3% salary increase for a 2.5 year contract
 - Data Management Staff Person - \$34,663
 - Part-Time at \$22/hr for 20 hr/week
 - 3% annual raise for a 1.5 year contract
- Fringe Benefits Total = \$78,652
 - For Communications Project Manager, 41% of salary
- Travel Total = \$35,882
 - \$9,082 for Community Outreach
 - Communication Project Manager travel at .67/mile at 15 miles/wk for 2 years
 - Consultant local milage at .67/mile at 10 miles/wk for 2 years
 - Milage to Fargo for out of town consultant at .67/mile at 250 miles quarterly for 2 years
 - Flights for consultant at \$500/trip for 4 trips
 - Hotel for contracts on travel at \$200/night and 8 nights/yr for 2 years
 - Meal stipends for contractors on travel at \$50/day for 8 days/year over 2 years
 - \$26,800 for Electrical Contractor
 - Construction travel for two trucks 0.67/mile for 250 miles/week, 40 weeks/year for 2 year project
- Equipment Total = \$800,000
 - Two bucket trucks with a 60-foot boom at \$125/hr, 8 hrs/day, 40 wks/yr for 2 years
- Supplies Total = \$538,700
 - \$12,000 for Community Outreach materials
 - Printing costs for 30,000 postcards/flyers per year for 2 years

- \$.20 per postcard/flyer
- \$526,700 for fixtures and LED bulbs
 - 400 new 250/400W fixtures at \$400/fixture
 - 350 new 100/150W fixtures at \$600/fixture
 - 3134 LED bulbs at \$50/bulb
- Contractual Total = \$960,600
 - \$128,600 Community Outreach
 - \$93,600 for Public Outreach Consultant - \$150/hr, 6 hrs/wk for 2 years
 - \$35,000 for Public Outreach Support staff - \$17,500 annually for 2 years
 - \$832,000 for Electrical Contractor
 - 2 Journeyman/year at \$80.00/hr, 40 hrs/wk, 40 wks/yr for 2 years
 - 2 apprentice electricians/year at \$50.00/hr, 40 hrs/wk, 40 wks/yr for 2 years

The work of the electrical contractor will lead to direct GHG emission reductions because they will install more energy efficient light bulbs, which will reduce energy consumption and subsequently, GHG emissions from energy generation. The bucket trucks, new light bulbs, construction travel, and labor all play a vital role in realizing these reductions. In a similar vein, the energy efficiency data management role will make it possible to best monitor these reductions and identify future opportunities to improve efficiency and thus reduce emissions from energy.

The outreach personnel, travel, and supplies will spur more conversation about climate action throughout Fargo. With intentional outreach and the creation of the Community Resilience Fund, the City plans to see more emissions reductions in the future.