**Northeast Florida's Electric Vehicle Overhaul and Low-Emission Transit (E-VOLT) Project Work Plan**

**1. Overall Project Summary and Approach**

The Jacksonville Metropolitan Statistical Area (MSA) utilized a non-competitive EPA Climate Pollution Reduction Planning Grant to complete a Priority Climate Action Plan (PCAP), which was submitted to EPA for review and approval. The MSA is comprised of Duval, Clay, St. Johns, Nassau Counties, and the City of Palm Coast with deep collaboration with the Cities of Jacksonville, St. Augustine, and Atlantic Beach. The total approximate population of the MSA is 1,605,848. The City of Jacksonville (COJ) is the largest metropolitan area in Northeast Florida, with a population of 999,935. Moreover, COJ is the largest city in terms of land mass in the continental United States, covering 841 square miles, and includes other incorporated communities such as Atlantic Beach, Baldwin, Jacksonville Beach, and Neptune Beach. COJ is a coastal area with the St. Johns River, the longest river in Florida, that flows north through the middle of the city and transverses or borders 12 counties. COJ was consolidated with Duval County in 1968 and has a strong mayoral-led form of government with numerous city-wide departments and independent agencies that serve its citizens and surrounding areas. The four-year plan associated with the PCAP places heavy emphasis on equity by engaging in meaningful public input from and actively addressing needs within the 91 Low Income and Disadvantaged Communities (LIDAC) and regional collaboration across the MSA to affect changes within the transportation sector.

The transportation sector is pivotal in addressing climate change challenges in Northeast Florida (NEFL), as it is the largest single contributor (40%) to greenhouse gas emissions in the region. This application focuses on implementing the Mass Transit Expansion and Mobility Hubs Initiative, Bike-Ped Program Initiative, and Electric Vehicle (EV) Fleet Transition Initiative.

**1.a.** **Description of Greenhouse Gas (GHG) Reduction Measures**

This project aims to facilitate GHG emissions reduction by implementing three reduction measures included in the MSA’s [Clean Air Northeast Florida PCAP](https://cleanairnortheastflorida.com/project-documents), as published on [cleanairnortheastflorida.com](https://cleanairnortheastflorida.com/). These three priority measures are the Mass Transit Expansion and Mobility Hubs Initiative, the Bike-Ped Program Initiative, and the EV Fleet Transition Initiative.

**Mass Transit Expansion and Mobility Hubs Initiative**

**Detailed description:** This reduction measure, included within the Clean Air Northeast Florida PCAP was chosen as a priority as it will pave the way to more sustainable public transport modes to foster better regional connectivity and decrease carbon emissions. The project will include expanding and improving existing transit stops into mobility hubs. Mobility hubs, which co-locate and integrate different modes of transportation, play a crucial role in transportation networks as transfer points between modes. Mobility hubs will enable safe, reliable, and convenient access to public transit, micro-transit, micro-mobility, and other services and amenities. As the City of Jacksonville and the Northeast Florida region grow, transportation and mobility options will have to evolve to meet demand in a sustainable way. The JTA’s Mobility Optimization Through Vision and Excellence 2023 – 2027 (MOVE2027) Strategic Plan (attached to this application) guides the Authority on its mission to serve as a regional integrator of mobility solutions. Mobility hub investment is a key tactic of MOVE2027 (Tactic 5.04.01) and a vital next step for furthering the JTA’s regional transportation goals. Five hub locations are included in this application, with three locations in Duval County and two locations in Clay and St. Johns Counties. Possible locations were determined through outreach and community engagement during the development of MOVE2027. Maps of pre-identified locations are attached to this application. These improved mobility hubs will reduce GHG emissions related to commuting for employment and other essential services. All locations were chosen to maximize service to LIDAC residents. COJ and JTA are dedicated to moving residents away from single-occupancy vehicle reliance, aiming to decrease the region's carbon footprint by 2050 substantially. This effort was chosen as a priority as it will make public transport more accessible across the region, thereby reducing the environmental impact of single-occupancy vehicle usage. It will also improve the quality of life for LIDAC and can reduce GHG emissions conservatively by 1,969 mtCO2e by 2030 and 10,623 mtCO2e by 2050.

**Major features, tasks, and milestones:** The **major features** of implementing this reduction measure are public engagement and the construction of mobility hubs. The project’s **tasks** will include the procurement of a non-profit organization to spearhead public engagement focusing on but not limited to public education on transportation services offered and the design and the final design and construction involved with expanding and improving existing transit stops into mobility hubs. The **milestones** will be the final design, construction, and opening of the hubs, one completed per year from 2025-2029, for transportation services to the public.

**Assumptions and Risks** include upfront and ongoing costs, probable disruption and inconvenience during implementation, limited impact on employment for local residents if they are unaware of opportunities, lack skills or face barriers to entry, concerns about safety and security, concerns about accessibility and equitability, potential disruption to local cultures and social fabrics, potential gentrification and displacement impacts, acquisition of right-of-way, supply chain delays, and probable maintenance and operational challenges.

**Solutions to plan to mitigate** these assumptions and risks are beginning with the locations where JTA owns the right-of-way will make this a non-issue, ordering components and amenities early in the process to account for any unforeseen supply chain issues, to clearly communicate project goals, benefits, potential impacts, and community engagement opportunities throughout the process; provide targeted training and job placement assistance for workers in LIDACs to ensure they benefit from the expansion; continue to work on adding amenities to the transit experience (e.g., free Wi-Fi) to encourage people not to take their car; and create a sustainable, long-term funding plan.

**Bicycle-Pedestrian Program Initiative**

**Detailed description:** This reduction measure consists of several projects, including the construction of protected/separated bike lanes to add buffer areas to existing bicycle lanes and expanded Shared Use Paths, E-bike voucher program, and E-bike share (micro-mobility) program that will be executed and managed by COJ. Voucher program funding will specifically be distributed to low-income residents within a five-mile radius of the three Duval, one St. Johns, and one Clay County mobility hub. This measure was chosen as a priority within the Clean Air Northeast Florida PCAP for its encouragement of active transportation, improved non-motorized safety enhancement, provision of modal options for underserved communities, and its overall alignment with the NEFL’s GHG reduction goals. It is projected to reduce GHG emissions by 4,546 mtCO2e by 2030 and 22,731 mtCO2e by 2050.

**Major features, tasks, and milestones.** The **major features** of this reduction measure implementation are buffer areas to existing bicycle lanes while also adding vertical delineators (mountable cast-in-place curbing, noncontinuous vertical separators, Zicla Zipper systems, FG-300 curbing, etc.); an E-bike voucher pilot program for lower-income households and other EJ community members that currently rely on shared car services and other internal combustion engine vehicles (ICEs) to get to schools, jobs, and essential services; an extensive, dockless E-bike share program within COJ’s more densely populated urban development area, wherein individual E-bikes can be used on a temporary basis for a minimal fee or monthly subscription; The **tasks** are public engagement, construction of the bike lanes, trails; and the implementation of the E-bike voucher and the E-bike share program which will include hiring new City Staff and procuring any necessary contracts to manage the programs.The **milestones** for the tasks associated with the bike lanes will be final design, construction, and opening to the public for services. Milestones for the E-bike voucher will issue vouchers for E-bike or E-cargo-bike for qualifying residents. The E-bike share program’s milestones will be hiring staff and/or procuring consultants for the program, fine-tuning it, and opening it to the public.

**The assumptions/variables/definitions and resources** used for the planned implementation of this measure include the number of people using a particular mode of transportation to commute, which is called “mode share.” Mode share can be derived and extrapolated to the larger population using the Census Bureau’s American Communities Survey (ACS) data. The most current ACS data states that of all workers in Jacksonville that commute to work above the age of 16, which total of 487,985, a total of 1,625 use a bicycle to get to work (0.33%), and 6,558 walk to work (1.34%).[[1]](#footnote-2) Commuters often cite lack of connected facilities (bike lanes, trails, etc.), lack of comfortable facilities, and overall lack of facilities as reasons why they do not walk or bike to work and instead drive or use car share services (common with zero-car households). Using identified barriers, we can use the often-used “Bicycle Design Users Profiles” to estimate, based on the recommended project or program, how many new users will use biking as their new means of commuting.[[2]](#footnote-3) Using the carbon reduction estimates from Denver’s follow-up report to their highly successful E-bike voucher program[[3]](#footnote-4), we can calculate the estimated new ridership (increase of mode share) and, multiply that number by the number of reported short vehicle trips and then determine the number of reduced ICE vehicle carbon emissions.

**Risks** include initial costs and construction disruptions, E-bike affordability, and equitable access to charging infrastructure, E-bike safety for riders and pedestrians, and shower/locker facility utilization and costs. The **plan to mitigate** these assumptions and risks is to actively involve residents in planning and decision-making to ensure their needs and concerns are heard and addressed; design all elements with accessibility in mind, ensuring everyone can safely and comfortably use the new infrastructure; consider bike repair stations; and prioritize safety through dedicated enforcement, lighting, and educational campaigns.

**Fleet Transition to Electric Vehicles Initiative**

**Detailed description:** Northeast Florida is committed to transitioning 234 fleet vehicles to EVs within the City of Jacksonville/ Duval County, Duval County Public Schools District (DCPS), and various cities within the Jacksonville-MSA. By adopting transportation electrification, the COJ is tangibly demonstrating environmental sustainability. The COJ vehicles will be rolling dashboards of sustainability that will bring a new level of awareness and education about sustainability to the citizens of Jacksonville.

DCPS is the 6th largest school district in Florida and 20th in the nation, with 197 schools servicing 129,000 students (minority enrollment at 70% with 40% categorized as economically disadvantaged) DCPS. This measure aims to reduce the region’s carbon footprint by replacing up to 77 EV police and operational fleet vehicles and 16 school buses within DCPS’s fleet, 95 EV fire and city fleet vehicles within the City of Jacksonville, and an additional 46 EV fleet vehicles within NEFL Counties included in the MSA. This measure prioritizes vehicles that service LIDAC communities first, and this measure was chosen as a priority as it is a proven method of reducing GHG emissions and would dramatically reduce emissions in the region by 1,552,942 mtCO2e by 2030 by 9,597,290 mtCO2e by 2050.

**Major features** of this reduction measure are to facilitate the purchase of approximately 20 electric vehicles by financing the **differential cost** to replace traditional vehicles within the region’s fleets and the installation of enough charging stations sufficient to maintain additional fleet vehicles. **Tasks** will include sub-awarding funds to participating jurisdictions, procuring EVs and charging stations, procuring consultants to design any necessary plans, and observing and inspecting the EV charging stations' installation. **Milestones** will be measured not only in the percentage of traditionally fueled vehicles replaced by new electric vehicles within DCPS, City of Atlantic Beach, COJ, and Northeast Florida Counties but also in the number of charging stations installed, the feedback from public engagement and the reduction in GHG emissions attributed to this transition initiative.

**Assumptions and Risks** include limited infrastructure, potential job displacement in traditional fossil fuel sectors, and anti-EV sentiment. The **plan to mitigate** these assumptions and risks is to develop infrastructure to properly charge, maintain, and operate these vehicles; consider the long-term costs and accessibility of maintenance and repairs for EVs to ensure affordability; track the transition's impact with data and monitor disadvantaged communities and city employees and budget, including air quality, health outcomes, job creation, and economic savings, to adapt the approach as needed. Upgrading EV fleet parking lots and service areas with Level two charging stations may require installation of larger transformers that can handle the electrical demand. This is being mitigated by close coordination with the electric utility, JEA. JEA has pledged to support this effort with advisory services, including developing a Fleet Conversion Plan for the City of Jacksonville fleet. JEA will also provide rebates (capped at $15,000, or 60% of project cost, whichever is less) to the COJ for EV chargers installed and for some make-ready expenses when electric service upgrades are required.[[4]](#footnote-5)

**1.b.** **Demonstration of Funding Need**

The Northeast Florida's Electric Vehicle Overhaul and Low-Emission Transit (E-VOLT) project is a visionary step towards actualizing the principles of Resilient Jacksonville: Jacksonville’s 50-Year Resilience Strategy. By addressing the pressing challenge of climate change through innovative transportation solutions, the E-VOLT project aligns perfectly with the strategy’s focus on fostering healthy communities and environments while proactively adapting to evolving social and economic conditions. The project, by facilitating the transition to electric vehicles and enhancing mass transit and mobility hubs, directly supports actions aimed at reducing greenhouse gas emissions, one of the critical objectives of Resilient Jacksonville. This initiative addresses acute shocks like extreme heat and tackles chronic stressors such as urban heat island effect and pollution— contributing to a more equitable, sustainable, and resilient urban environment. Through strategic investments in clean transportation infrastructure, the E-VOLT project embodies the strategy’s goals to guide smart and equitable development in areas safe from future hazards, promote safe and connected transportation options, and ultimately build a future-proof city that anticipates the needs and risks of the coming decades. By championing such transformative projects, Jacksonville moves closer to realizing a resilient future where the community thrives in harmony with its natural environment, bolstered against the impacts of climate change.

Understanding that clean fuel adoption and infrastructure growth are critical for resilience, the North Florida Clean Fuels Coalition released the Clean Fuels Master Plan that addresses funding beginning on page 38.[[5]](#footnote-6)

Among the funding sources identified for the transition to electric vehicles is the National Electric Vehicle Infrastructure Formula Program (NEVI), which can fund vehicles and infrastructure through allocations to the Florida Department of Transportation in FY22–26. The Clean School Bus Program through EPA will replace existing school buses with zero-emission and low-emission buses. Duval County School District vendor, Durham, requested and received the award for 25 EV school buses through this program for FY 2023 and the vendor, STA, applied in Round three for an additional 25 buses. The award announcement is expected in April 2024.

Within the Building a Clean Energy Economy Guidebook, the Greenhouse Gas Reduction Fund, and the Energy Infrastructure Reinvestment (EIR) Program are highlighted as funding opportunities that will assist and advance the transition to clean fuels. Additionally, the Clean Heavy-Duty Vehicle Program will support replacing class six and seven commercial vehicles to transition to zero-emission vehicles.

On a state level, the Diesel Emission Mitigation Program (DEMP) and the Electric Transit Bus Grant Program, an initiative under DEMP, fund the replacement of diesel transit vehicles. Duval County has utilized this funding in the past to procure electric transit buses that replaced existing diesel transit buses.

Prior funded endeavors of the North Florida TPO include constructing the new mid-duty bi-fuel Compressed Natural Gas (CNG) fleet stations in St. Johns County, establishing the Jacksonville Transportation Authority (JTA) CNG station, procuring new Liquified Natural Gas (LNG)-equipped locomotives and fuel cars for the Florida East Coast Railway pilot project, installing regional EV charging stations in collaboration with JEA, and covering CNG equipment expenses for new CNG sanitation trucks in the City of Jacksonville.[[6]](#footnote-7)

FDEP Recreational Trails Grant, DOT Active Transportation Grant, USDA Community Facilities Grant, DOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE), and Safe Streets and Roads for All (SS4A) are programs that can assist in the funding future phases of the Bike/Ped reduction measure’s implementation. The USDA Community Facilities Grant and the RAISE grant could also be utilized to fund the construction of additional regional mobility hubs.

While additional funding sources are continuously being sought and applied, the project’s total scope to implement the reduction measures is too large for one funding source. CPRG funding is needed to initiate needed changes identified in the Clean Air Northeast Florida PCAP so that reductions in GHG emissions can be realized within the timelines of 2030 and 2050. Without CPRG funding, the differential between traditional and EV vehicles will add additional strain on the City funding, resulting in fewer vehicles being replaced each year by an EV.

Additionally, federal incentives that may apply would be the commercial clean vehicle tax credit.[[7]](#footnote-8) This tax credit or direct pay incentive will be based on the vehicle purchased. The Alternative Fuel Vehicle Refueling Property Credit[[8]](#footnote-9) is possibly available based on the census tract for COJ infrastructure locations. The conversion to EV will be much greater than the incentives provided. Purchasing EVs over traditional vehicles is greater than the incentive. The infrastructure cost will be much higher as COJ has not installed chargers currently on-site at their parking locations. COJ is interested in transitioning its fleet vehicles to EVs as quickly as possible, and the funding from CPRG will be utilized to fund the differential cost to increase the number of EVs that can be purchased significantly.

Currently, JTA budgets $250k per year for Mobility Hub planning and capital projects. MobilityWorks 2.0 program (LOGT) will also include some improvements to the NW Corridor of Jacksonville, which may include Mobility Hubs. In addition, JTA has pursued congressional earmarks/community-funded projects for transit hub improvements in the past. CPRG will accelerate the deployment of Mobility Hubs by allowing JTA to implement the first five hubs. During this time, JTA can apply for other funding to support the remaining 13 locations identified for Hubs and identify areas for new hubs.

As a tactic in JTA’s MOVE2027 five-year strategic plan, JTA is committed to achieving the deployment of Mobility Hubs within our system. CPRG funding will significantly accelerate the deployment of hubs, allowing JTA to adapt its transit network to the changing needs of our community. However, without this funding, COJ/JTA would exhaust our abilities to secure other discretionary funds or budget local funds to deliver these projects. However, the timeline would be much longer under this circumstance.

**1.c.** **Transformative Impact**

*Reaching deep reductions in greenhouse gas emissions from the U.S. transportation sector will require diverse system and technology development strategies targeting energy intensity, carbon intensity, and demand for transportation services. Technological, economic, demographic, and social trends shape the likelihood of reaching a reduction threshold consistent with what climate scientists report is needed by 2050.[[9]](#footnote-10)*

The three reduction measures in this application can impact more than just GHG emission reduction to address and support sustainable communities and economic development in LIDACs. The benefit of climate resistance within this region cannot be overlooked, as Jacksonville is on the front lines of the effects of climate change. *Investment in emissions reduction technologies can jumpstart various benefits for LIDACs, including increased household wealth and health due to low-cost and reliable renewable energy, building electrification, and electrified transport technologies. Higher demand for labor and local expertise to build and install clean technologies can boost job creation, thereby promoting wealth creation and economic mobility.[[10]](#footnote-11)*

Implementing the E-VOLT project will demonstrate sustainability and set the pace for other organizations in Northeast Florida. Taking a tangible step to reduce pollutants impacting vulnerable populations will bear good fruit over time and validate the decision to electrify transportation. This will increase participation by additional agencies, companies, and the public.

According to a 2019 report published by the International Renewable Energy Agency (IRENA), shifting to renewable energy and electrification can produce 75% of the emission reduction needed. If renewables, energy efficiency, and substantial electrification are combined, over 90% of the needed reductions in carbon emissions can occur.[[11]](#footnote-12)

The three reduction measures prioritized for this application are scalable and can be implemented as funding allows. The measures included in their entirety are too large to fund from one source. This application represents an effective start or first phase in implementing these measures. It will facilitate momentum for implementing future phases of the Clean Air Northeast Florida PCAP priority measures. Benefits will be seen upon each phase of the measures' completion and will continue to compound as the impacts of lowered GHG emissions are realized.

**2.** **Impact of GHG Reduction Measures**

**2.a. Magnitude of GHG Reductions from 2025 through 2030**

The measures included within this application will all permanently reduce GHG emissions. The estimates of reductions attributed to each measure were calculated using conservative estimates. The sum total of GHG emission reductions listed below for all three measures included within this application is an estimated 1,559,457 mtCO2e by 2030. The reductions attributed to the three measures within the application will grow steadily and greatly impact the region. This predictable growth makes these measures and, thus, this implementation plan durable.

**Mass Transit Expansion and Mobility Hubs Initiative**

The construction of five mobility hubs will pave the way to more sustainable public transport modes to foster better regional connectivity and decrease carbon emissions by facilitating a move away from single-occupancy vehicle reliance. This measure has the potential to reduce GHG emissions conservatively by 1,969 mtCO2e by 2030 and will result in a durable and permanent GHG reduction as it will make public transport more accessible, thereby reducing the environmental impact of single-occupancy vehicle usage. The methodologies for this measure assume mobility hubs will create new transit users in Duval, Clay, and St. Johns counties. Public transit reduces the fuel burned by personal or single occupancy vehicles, reducing GHG emissions.

**Bike-Ped Program Initiative**

These programs, in total, are estimated to result in a 909 mtCO2e reduction per year, reducing emissions by 4,546 mtCO2e through 2030. The encouragement and facilitation of active transportation versus gas-fueled transportation, the improved non-motorized safety enhancement along with a provision of modal options for underserved communities, and its overall alignment with Clean Air Northeast Florida’s GHG reduction goals make this a durable reduction measure. The reductions seen through the implementation of this measure will be permanent. The methodologies for this measure quantify the number of internal combustion engine vehicle miles being reduced by new bicycle ridership created by bike-ped programs.

**EV Fleet Transition Initiative**

This measure aims to reduce the region’s carbon footprint by replacing vehicles operating on traditional fossil fuels with electric vehicles. Electric motors are typically 85% – 90% efficient, whereas internal combustion engines are 20% – 30% efficient. Implementing this reduction measure will result in a 1,552,942 mtCO2e reduction through 2030. The reductions seen through the transition to EVs within the region’s fleets will result in a durable and permanent GHG emission reduction. The methodologies for this measure quantify the volume of fossil fuel being reduced by converting to electric vehicles. Additionally, GHG emissions from electricity production for charging are subtracted from reduced tailpipe emission.

**2.b. Magnitude of GHG Reductions from 2025 through 2050**

The measures included within this application will all make permanent reductions in GHG emissions. The estimates of reductions attributed to each measure were calculated using conservative estimates. The sum total of GHG emission reductions listed below for all three measures included in this application is estimated at 9,630,644 mtCO2e by 2050.

The reductions attributed to the three measures within the application will grow steadily and greatly impact the region by 2050 and beyond. This predictable growth makes these measures and, thus, this plan for implementation durable.

**Mass Transit Expansion and Mobility Hubs Initiative**

The construction of five mobility hubs will pave the way to more sustainable public transport modes to foster better regional connectivity and decrease carbon emissions by facilitating a move away from single-occupancy vehicle reliance. This measure has the potential to reduce GHG emissions conservatively by 10,623 mtCO2e by 2050 and will result in a durable and permanent GHG reduction as it will make public transport more accessible, thereby reducing the environmental impact of single-occupancy vehicle usage. The methodologies for this measure assume mobility hubs will create new transit users in Duval, Clay, and St. Johns counties. Public transit reduces the fuel burned by personal or single occupancy vehicles, reducing GHG emissions.

**Bicycle-Pedestrian Initiative**

These programs, in total, are estimated to result in a 909 mtCO2e reduction per year, reducing emissions by 22,731 mtCO2e through 2050. The encouragement and facilitation of active transportation versus gas-fueled transportation, the improved non-motorized safety enhancement along with a provision of modal options for underserved communities, and its overall alignment with Clean Air Northeast Florida’s GHG reduction goals make this a durable reduction measure. The reductions seen through the implementation of this measure will be permanent. The methodologies for this measure quantify the number of internal combustion engine vehicle miles being reduced by new bicycle ridership created by bike-ped programs.

**Fleet Transition to Electric Vehicles Initiative**

This measure aims to reduce the region’s carbon footprint by replacing vehicles operating on traditional fossil fuels with electric vehicles. Electric motors are typically 85% – 90% efficient, whereas internal combustion engines are 20% – 30% efficient. Implementing this reduction measure will result in a 9,597,290 mtCO2e reduction through 2050. The reductions seen through the transition to electric vehicles within the region’s fleets will result in durable and permanent GHG emission reductions. The methodologies for this measure quantify the volume of fossil fuel being reduced by converting to electric vehicles. Additionally, GHG emissions from electricity production for charging are subtracted from reduced tailpipe emissions.

**2.c. Cost Effectiveness of GHG Reductions**

E-VOLT requested CPRG funding of $49,999,999 divided by 1,559,457 mtCO2e quantified GHG reductions from CPRG funding from 2025 through 2030 equals an **overall project cost effectiveness** of the E-VOLT Project of **$32.06 per** mtCO2e reduction for the period of **2025 through 2030**.

Many qualitative benefits are not factored into the cost-effectiveness of the measure. Reducing the pollutants associated with internal combustion engine tailpipe emissions directly correlates to public health, especially in Justice40 communities. Particulate matter are fine inhalable particles.[[12]](#footnote-13) Once inhaled, these can get deep within the lungs, and some can enter the bloodstream, causing serious health problems.[[13]](#footnote-14) These health problems can include but are not limited to premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decrease in lung function, and increased respiratory symptoms[[14]](#footnote-15)

The availability of sustainable public transport will have the qualitative benefits of **less congested streets**, **reduced noise pollution**, and **lower individual and community transportation costs**. Noise pollution can cause hearing loss as well as contribute to non-auditory health issues. The high levels of dBAs associated with noise pollution affect the surrounding community’s populations by interrupting concentration, increasing heart rates, and limiting the ability to carry on a conversation.[[15]](#footnote-16)

“*Chronic noise, even at low levels, can cause annoyance, sleep disruption, and stress that contribute to cardiovascular disease, cerebrovascular disease, metabolic disturbances, the exacerbation of psychological disorders, and premature mortality. Noise interferes with cognition and learning, contributes to behavior problems, and reduces achievement and productivity… with children among the most vulnerable.*”[[16]](#footnote-17)

Commuting via mass transit includes walking to and from stations or stops, which would contribute to daily physical activity. This can improve overall **public health** and reduce the likely chronic illnesses associated with a sedentary lifestyle, such as obesity and cardiovascular illness, which are shown to have a higher incidence of occurrence in LIDAC.

The E-bike voucher and E-bike share programs will provide residents and underserved communities with an **active transportation option** to commute to employment centers, healthcare, retail, schools, places of worship, and other essential services.

**Public health** isimproved by reducing emissions. This translates into **healthier communities** through increased **air quality**. Improvements in air quality will reduce asthma attacks, heart attacks and strokes, lung cancer, and premature deaths, especially in those living nearest to transportation corridors; environmental **stewardship** by supporting the region’s environmental commitment by decreasing the volume of fuel burned, thereby reducing GHG emissions, positively impacting LIDAC with **focused job training** and **educational programs** for low income and disadvantaged populations to support the regional transition to EV adoption and create a knowledgeable workforce of drivers and maintenance staff. Reduced exposure to vehicle fuels and emissions is connected to improved health outcomes.

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

**Mass Transit Expansion and Mobility Hubs Initiative**

A systematic approach was implemented for GHG reduction estimates over five mobility hubs. Estimates were based on mobility hubs creating more public transit users, therefore reducing the amount of fuel being burned by facilitating a move away from single-occupancy vehicles. Three mobility hubs will be located within Duval County, one in St. Johns County, and one in Clay County. Populations for each county were gathered from the United States Census Bureau. Local census data was collected to show how many people reported using public transportation in each respective county. This gave us an estimated number of current transit users for each county. A conversion rate of 0.75% was then applied to these numbers to estimate new transit users that will be created by mobility hubs in each respective county over five years and over 25 years. It was estimated that each transit user will reduce vehicle miles traveled and reduce average fuel consumption by approximately 400 gallons per user each year. Four hundred gallons were multiplied by the number of new transit users and projected for 2030 and 2050. The total number of gallons saved was then divided by the appropriate conversion factor as found on the EPA Greenhouse Gas Equivalencies Calculator, and emission reductions were quantified.

**Bike-Ped Program Initiative**

Estimates of GHG reductions for the Bike-Ped programs were completed based on reducing VMT by creating new bicycle commuters and creating a safer environment for current riders. The most current ACS data states that of all workers in Jacksonville who commute to work above the age of 16, a total of 487,985, a total of 1,625 use a bicycle to get to work. By developing protected/separated bike lanes citywide, we estimated this to create an approximately 35% rise in cyclists who now feel comfortable enough to ride to work and jobs. We then multiplied the number of new riders by the estimated number of internal combustion engine (ICE) vehicle miles reduced (from the City of Denver’s E-Bike program) and multiplied the estimated CO2e per vehicle mile to get our GHG reduction estimates per year. This was then projected out to both 2030 and 2050. The E-Bike program estimated that we will provide 300 new E-bikes to qualifying participants and create 300 new riders. Using the same method as above, we estimated GHG reductions per year. This was then forecasted out to both 2030 and 2050. The E-bike share program is estimated to create a 50% rise in cyclists who now feel comfortable enough to use the E-bikes to ride to work and jobs. The same method as above was used to predict GHG reductions through 2030 and 2050.

**EV Fleet Transition Initiative**

EV fleet transition GHG reduction estimates were based on the total gallons of fuel being reduced by converting to electric vehicles. Additionally, emissions from creating the electricity required to charge these vehicles were estimated and subtracted from emission reductions via fuel burning. We gathered all viable information from respective fleets that will be transitioned to EVs. Vehicle miles traveled (VMT) were collected or assumed if this information was unavailable (AFLEET Florida Averages). Approximate miles per gallon for each vehicle were then multiplied by the number of VMT, and an estimate of fuel amount per vehicle per year was calculated. It was then assumed that an EV would save that many gallons of fuel annually. An estimate of kWh needed to charge each vehicle was calculated and multiplied by the projected MTCO2e/kWh produced for each year through 2050. Estimates of GHG produced for vehicle charging were then subtracted from reductions of GHG estimated from not burning total amounts of fossil fuels. This was forecast for both 2030 and 2050, creating accurate GHG reduction estimates.

1. **Environmental Results – Outputs, Outcomes, and Performance Measures**

**3.a. Expected Outputs and Outcomes**

**Mass Transit Expansion and Mobility Hubs Initiative**

**Outputs:** This measure's outputs include the improvement and expansion of five transit stations to form five mobility hubs and public engagement.

**Outcomes:** The construction of five mobility hubs will pave the way to more **sustainable public transport modes** to foster better r**egional connectivity** and **decrease GHG emissions** by facilitating a move away from single-occupancy vehicle reliance (**10,623 mtCO2e reduction through 2050**). The availability of sustainable public transport leads to **less congested streets**, **reduced noise and air pollution**, and **lower individual and community transportation costs**. Commuting via mass transit includes walking to and from stations or stops, which would contribute to daily physical activity. This can improve overall **public health** and reduce the likely chronic illnesses associated with a sedentary lifestyle, such as obesity and cardiovascular disease, which are shown to have a higher incidence of occurrence in LIDAC.

**Bike-Ped Program Initiative**

**Outputs:** This measure’s **outputs** are the construction of **protected/separated bike lanes** city-wide, the implementation of an **E-bike voucher pilot program** to distribute vouchers for the full cost of an E-bike for low-income residents, and an **E-bike share program** to encourage non-motorized travel.

**Outcomes:** This reduction measure will create **healthier communities**, increase **quality of life**, increase **safety** for bike transportation, increase options and **access to transportation** for underserved communities, **reduce transportation costs**, and reduce emissions in the region, **22,731 mtCO2e reduction through 2050, resulting** in better overall air quality. The E-bike voucher and E-bike share programs will provide residents and underserved communities with an **active transportation option** to commute to employment centers, healthcare, retail, schools, places of worship, and other essential services.

**EV Fleet Transition Initiative**

**Outputs:** This measure's outputs are the purchase **of 240 EV fleet vehicles** and the installation of **charging stations.**

**Outcomes:** The **GHG emission reduction** of 9,597,290 mtCO2e through 2050, **public health** improvement by reducing emissions. This translates to **healthier communities** through increased **air quality**. Improvements in air quality will reduce asthma attacks, heart attacks and strokes, lung cancer, and premature deaths, especially in those living nearest to transportation corridors; environmental **stewardship** by supporting the region’s environmental commitment by decreasing the volume of fuel burned, thereby reducing GHG emissions, positively impacting LIDAC with **focused job training** and **educational programs** for low income and disadvantaged populations to support the regional transition to EV adoption and create a knowledgeable workforce of drivers and maintenance staff. Reduced exposure to vehicle fuels and emissions is connected to improved health outcomes.

**3.b. Performance Measures and Plan**

The performance measures used to track, measure, and report progress toward achieving the expected outputs and outcomes are listed below under their respective measures. Additionally, the resulting GHG reduction will be quantified using the actual data obtained during and after the implementation of the measures within this project.

**Mass Transit Expansion and Mobility Hubs Initiative**

COJ will work with JTA to track increased ridership among the mobility hubs over time. Metrics will include the number of riders, route connections, and weekday and weekend frequency per route. They will also track performance based on customer surveys and feedback. Outreach may include expanded surveys for regular riders to track the number of miles they travel weekly using mass transit. Additionally, monitoring street congestion, air quality, and regional transportation costs annually will assist in tracking and reporting success within this reduction measure.

**Bike-Ped Program Initiative**

The performance measures used to track, measure, and report the success of this implementation will be the monitoring of bike usage and public surveys. This can be compared to historical data to recognize progress. The E-bike voucher program can be tracked based on the number of vouchers utilized by the public, surveys on biking habits, and increased usage of the mobility hubs. The survey will include the miles biked per week and miles traveled by weekday/weekend mass transit. The E-bike share program, which will be app-based, will allow progress to be tracked through the total fees and/or subscriptions collected by the initiative.

**EV Fleet Transition Initiative**

Each organization will monitor cost, environmental, operational, transition, regulatory and compliance, performance, and stakeholder metrics to evaluate better the effectiveness, costs, and benefits of the EV fleet transition for reporting on success within the measure. Cost metrics include the total cost of ownership, fuel savings annually, and maintenance costs. Environmental metrics include carbon emissions and energy consumption for EVs in kWh per 100 miles. Operational metrics include vehicle uptime/downtime, fleet utilization, and charging infrastructure utilization. Fleet transition metrics include adoption rate within the organization, infrastructure development, and employee training and engagement. Regulatory and compliance metrics include range efficiency under various conditions and vehicle reliability. Stakeholder metrics include driver, customer, and community feedback.

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

**Mass Transit Expansion and Mobility Hubs Initiative**

The City of Jacksonville (the applicant) and the Jacksonville Transit Authority (JTA) (sub–awardee) will cooperate on this measure. JTA has the authority to make the improvements necessary to transform the transit stations into mobility hubs. JTA will take the lead and be responsible under COJ as a sub-awardee for implementing this measure while keeping the lines of communication open with COJ on progress. Depending on the scope, location, or co-location with existing or development of new facilities, these would all be subject to the City of Jacksonville land use regulations and controls for the hubs. Local permits and other local regulations would have to be sought and complied with for the final construction of the physical structures or co-location/expansion of existing facilities to accomplish the stations’ goals.

**Timeline**

|  |  |
| --- | --- |
| Anticipated award start date | October 1, 2024 |
| Procurement and EPA approval of Consultant | November 2024 |
| Public Engagement | Ongoing throughout the grant period |
| 100 % Design completion / Permitting Hub | October 2024 – March 2025 |
| QAPP Preparation and EPA Approval | December 2024 – March 2025 |
| Sub Award and EPA Approval | March 2025 |
| Bid Document Preparation | May 2025 |
| Procurement of Supplier (bikes and E-bikes) | May – June 2025 |
| Procurement and EPA approval of Contractor (transit signal priority systems) | May - June 2025 |
| Construction Hub 1 | October 2024 – September 2025 |
| Construction Hub 2 | October 2025 – September 2026 |
| Construction Hub 3 | October 2026 – September 2027 |
| Construction Hubs 4 and 5 | October 2027 – September 2028 |
| Semi-Annual Reporting | Every six months throughout the grant period |
| Grant Closeout – Final Reporting | October 2029 |

**Bike-Ped Program Initiative**

As the applicant, the City of Jacksonville will handle all the roles and responsibilities in implementing this measure. They have the authority to carry out all necessary actions to ensure project completion. The only issues relative to the scope of authority would be the location of the actual Bike-Ped lanes and the type of street they would be located upon. The Local Code is likely to dictate the needed right-of-way constraints relative to the development of the Bike-Ped lanes. Land planning can focus on alternative routes and connectivity for local streets where there is currently insufficient right-of-way to ensure a navigable network. Streets not within the COJ’s control where Bike Ped lanes could be contemplated would add another layer of coordination and potential design requirements, but not necessarily constraints. The E-Bike Share program would have similar Code implications if there were regulations related to where they can be located. However, if the COJ targets City-owned properties, then there is more flexibility in citing those attributes.

**Timeline**

|  |  |
| --- | --- |
| Anticipated award start date | October 1, 2024 |
| Procurement and EPA approval of Consultant | November 2024 |
| Public Engagement | Ongoing throughout the grant period |
| Design Completion / Permitting | October 2024 – June 2025 |
| QAPP Preparation and EPA Approval | December – March 2025 |
| Bid Document Preparation | May 2025 |
| E-bike voucher program creation and implementation | March 2025 – May 2025 |
| Procurement and EPA approval for E-bike share program creation and implementation | May 2025 – June 2025 |
| Procurement and EPA approval of Contractor | March 2025 – April 2025 |
| Construction | June 2025 – August 2029 |
| Semi-Annual Reporting | Every six months throughout the grant period |
| Grant Closeout – Final Reporting | October 2029 |

**EV Fleet Transition Initiative**

The City of Jacksonville applicant has the authority and will be responsible for implementing this measure within the City and Duval County. COJ will sub-award to the City of Atlantic Beach, Duval County Public Schools, and participating counties within the MSA for implementation within their respective jurisdictions. The only constraints on authority to implement may be related to individual procurement procedures, which can be dealt with by modifying individual procurement codes associated with equipment purchases. It is doubtful that obstacles related to the authority to implement this strategy would exist. However, if they did, other vehicles, such as piggyback contracting on larger EV purchases contracts through other statewide agencies, can be explored. Sub-awardees will have the necessary authority to carry out the actions required to ensure project completion.

**Timeline**

|  |  |
| --- | --- |
| Anticipated award start date | October 1, 2024 |
| Procurement and EPA approval of Consultant | November 2024 |
| Public Engagement | Ongoing throughout the grant period |
| QAPP Preparation and EPA Approval | December – March 2025 |
| Sub Awards and EPA Approval | March 2025 |
| Bid Document Preparation | May 2025 |
| Procurement and EPA approval for EV Fleet Vehicle Supplier | May – June 2025 |
| Purchasing of EV Fleet Vehicles | June 2025 – August 2029 |
| Semi-Annual Reporting | Every six months throughout the grant period |
| Grant Closeout – Final Reporting | October 2029 |

**4. Low-Income and Disadvantaged Communities**

Impacted LIDAC tracks are at or above the 90th percentile for diesel particulate matter exposure or traffic proximity and volume and are at or above the 65th percentile for low-income. Disadvantaged communities in Jacksonville also experience the highest incidence of vehicle-related pollution.

**4.a. Community Benefits**

**Mass Transit Expansion and Mobility Hubs Initiative**

LIDAC Census Tracts Impacted: LIDACs in Clay, Duval, Nassau, and St. Johns counties 12019030102, 12019030103, 12019030104, 12019030400, 12019031104, 12019031105, 12019031106, 12031000100, 12031000200, 12031000300, 12031000600, 12031001000, 12031001100, 12031001200, 12031001300, 12031001400, 12031001500, 12031001600, 12031002501, 12031002502, 12031002600, 12031002701, 12031002702, 12031002801, 12031002802, 12031002901, 12031002902, 12031010304, 12031010401, 12031010402, 12031010500, 12031010700, 12031010800, 12031010900, 12031011000, 12031011100, 12031011200, 12031011300, 12031011400, 12031011500, 12031011600, 12031011700, 12031011800, 12031011901, 12031012000, 12031012100, 12031012200, 12031012300, 12031012500, 12031012601, 12031012602, 12031012704, 12031012900, 12031013200, 12031013300, 12031013402, 12031013502, 12031013800, 12031013902, 12031013904, 12031014311, 12031015200, 12031015300, 12031015400, 12031015502, 12031015700, 12031015925, 12031016000, 12031016100, 12031016200, 12031016300, 12031016601, 12031016726, 12031016727, 12031017200, 12031017400, 12109020300, 12109021003, 12109021101

**Benefits to the LIDAC Communities** include improved air quality and public health, reduced climate change impacts and risks, increased job creation, job opportunities, and economic development, reduced transportation costs, increased Access to Opportunities and Quality of Life, enhanced public spaces, enhanced community connections, and potential revitalization and increased community development. By providing diverse transit options and mobility hubs, JTA addresses the mobility needs of all demographic groups, especially those in the LIDAC communities. This measure will provide increased access in a timely manner to employment opportunities, education, healthcare, and other essential services.[[17]](#footnote-18)

**Potential Challenges / Disbenefits** include upfront and ongoing costs, probable disruption and inconvenience during implementation, limited impact on employment for local residents if they are unaware of opportunities, lack skills or face barriers to entry, concerns about safety and security, concerns about accessibility and equitability, potential disruption to local cultures and social fabrics, potential gentrification and displacement impacts, and probable maintenance and operational challenges.

**Navigating / Mitigating the Challenges:** Clearly communicate project goals, benefits, potential impacts, and community engagement opportunities throughout the process; provide targeted training and job placement assistance for workers in LIDACs to ensure they benefit from the expansion; continue to work on adding amenities to transit experience (e.g., free Wi-Fi) to encourage people not to take their car; and create a sustainable, long-term funding plan.

**Bike-Ped Program Initiative**

LIDAC Census Tracts Impacted: LIDACs in City of Jacksonville 12031000100, 12031000200, 12031000300, 12031000600, 12031001000, 12031001100, 12031001200, 12031001300, 12031001400, 12031001500, 12031001600, 12031002501, 12031002502, 12031002600, 12031002701, 12031002702, 12031002801, 12031002802, 12031002901, 12031002902, 12031010304, 12031010401, 12031010402, 12031010500, 12031010700, 12031010800, 12031010900, 12031011000, 12031011100, 12031011200, 12031011300, 12031011400, 12031011500, 12031011600, 12031011700, 12031011800, 12031011901, 12031012000, 12031012100, 12031012200, 12031012300, 12031012500, 12031012601, 12031012602, 12031012704, 12031012900, 12031013200, 12031013300, 12031013402, 12031013502, 12031013800, 12031013904, 12031014311, 12031015200, 12031015300, 12031015400, 12031015502, 12031015700, 12031015925, 12031016000, 12031016100, 12031016200, 12031016300, 12031016601, 12031016726, 12031016727, 12031017200, 12031017400

**Benefits to the LIDAC Communities** includeincreased access and mobility to jobs for those who cannot drive, improved public health through more physical activity, reduced transportation costs, improved air quality and other environmental benefits, and enhanced community vitality, safety, and cohesion.

These programs will provide residents and underserved communities with an active transportation option to commute to employment centers, healthcare, retail, schools, places of worship, and other essential services. It is estimated that 80% of new ridership would be from low-income or zero-car households, currently using vehicle ride share or other internal combustion engine (ICE) vehicles for weekly short trips. The E-bike voucher program is specifically designed for lower-income residents and other EJ communities relying on shared car services and other ICE vehicles. These bike programs will create healthier communities, increase safety for bike transportation, increase options and access for underserved communities, reduce transportation costs, and reduce emissions in the region, resulting in better overall air quality.

**Potential Challenges / Disbenefits** include concerns about initial costs and construction disruptions, E-bike affordability, and equitable access to charging infrastructure, E-bike safety for riders and pedestrians, and shower/locker facility utilization and costs.

**Navigating / Mitigating the Challenges:** Actively involve residents in planning and decision-making to ensure their needs and concerns are heard and addressed; design all elements with accessibility in mind, ensuring everyone can safely and comfortably use the new infrastructure; consider bike repair stations; and prioritize safety through dedicated enforcement, lighting, and educational campaigns.

**EV Fleet Transition Initiative**

LIDAC Census Tracts Impacted: LIDACs in Nassau County, City of St. Augustine, City of Jacksonville, City of Atlantic Beach, Duval County Public School District: 12031000100, 12031000200, 12031000300, 12031000600, 12031001000, 12031001100, 12031001200, 12031001300, 12031001400, 12031001500, 12031001600, 12031002501, 12031002502, 12031002600, 12031002701, 12031002702, 12031002801, 12031002802, 12031002901, 12031002902, 12031010304, 12031010401, 12031010402, 12031010500, 12031010700, 12031010800, 12031010900, 12031011000, 12031011100, 12031011200, 12031011300, 12031011400, 12031011500, 12031011600, 12031011700, 12031011800, 12031011901, 12031012000, 12031012100, 12031012200, 12031012300, 12031012500, 12031012601, 12031012602, 12031012704, 12031012900, 12031013200, 12031013300, 12031013402, 12031013502, 12031013800, 12031013902, 12031013904, 12031014311, 12031015200, 12031015300, 12031015400, 12031015502, 12031015700, 12031015925, 12031016000, 12031016100, 12031016200, 12031016300, 12031016601, 12031016726, 12031016727, 12031017200, 12031017400, 12089050503, 12109021003, 12109020300, 1231016200, 12031016300, 12031016601, 12031016726, 12031016727, 12031017200, 12031017400, 12089050503, 12109021003, 12109020300

**Benefits to the LIDAC Communities** include improved air quality, respiratory health, and healthcare costs, reduced climate change risk, increased job creation and economic development, reduced noise pollution, reduced operating costs, and potential increased resilience with two-way charging.

Focused job training and educational programs for low-income and disadvantaged populations will support the regional transition of EV adoption and create a knowledgeable workforce of drivers and maintenance staff. Reduced exposure to vehicle fuels and emissions is connected to improved health outcomes. Reducing emissions means healthier communities through increased air quality. Improvements in air quality will also reduce asthma attacks, heart attacks and strokes, lung cancer, and premature deaths, especially for those living near transportation corridors.

**Potential Challenges / Disbenefits** include limited infrastructure, potential job displacement in traditional fossil fuel sectors, and anti-EV sentiment.

**Navigating / Mitigating the Challenges:** Consider the long-term costs and accessibility of maintenance and repairs for EVs to ensure affordability; Track the transition's impact with data and monitoring on disadvantaged communities and city employees and budgets, including air quality, health outcomes, job creation, and economic savings, to adapt the approach as needed.

**4.b. Community Engagement**

The Northeast Florida MSA conducted extensive intergovernmental coordination and outreach in developing the Clean Air Northeast Florida Priority Climate Action Plan. To identify stakeholders, NEFL MSA contacted local elected officials, community organizations, and advocacy organizations known to be interested in clean energy infrastructure and practices. A list of stakeholders is located on page 3 of the PCAP.

A bi-weekly meeting was held via MS Teams of all sustainability and resilience officers within the NEFL MSA and a monthly meeting of the NEFL Regional Council, a NEFL CPRG working group comprised of regional stakeholders across all sectors, including public, private, academia, and nonprofit subject matter experts, to discuss progress on the CPRG and offer insight and feedback from different perspectives.

Effectively communicating to LIDACs the benefits of initiatives, such as reductions in GHG emissions, job creation, clean energy job training, decreased energy costs, green space creation, and stakeholder engagement, was implemented with these goals in mind:

* **Transparent and Accessible Information:** Concise and easily understandable information about the initiative and its benefits: plain language, infographics, and visuals used to break down complex concepts.
* **Tailored Messaging:** Address the specific concerns and interests of LIDACs. How the initiative directly impacts their daily lives, communities, and well-being was given importance.
* **Storytelling:** Success stories and case studies from similar communities or individuals who have benefited from the initiative. Personalizing the narrative to make it relatable and emotionally engaging.
* **Community Representatives:** Trusted community representatives, including community leaders and influencers, were identified, and involved to bridge the gap between the initiative and LIDACs, bringing credibility and trust to the conversation.
* **Interactive Workshops and Seminars:** Workshops, seminars, or webinars were hosted in LIDAC communities to explain the benefits in detail. Addressing residents' questions and concerns encouraged participation and project buy-in.
* **Visual Impact Assessment:** Visual representations are provided, such as maps or graphs, to illustrate the reductions in GHGs, criteria pollutants, and hazardous air pollutants (HAPs) in specific communities or areas.
* **Job Creation Tracking:** Job creation data is identified and shared within the communities, highlighting the success stories of individuals who found employment opportunities within their own neighborhoods.
* **Clean Energy Training and Apprenticeships:** Investment in clean energy job training and apprenticeship programs in LIDAC communities was showcased, highlighting the success stories of participants who have improved their career prospects.
* **Energy Cost Reductions:** Data and examples of how the initiative has decreased energy costs for residents in LIDAC communities are shared, using real-life utility bill comparisons to demonstrate savings.
* **Qualitative Descriptions:** Qualitative descriptions capture the initiative's impact in human—and community-centric ways.
* Feedback Mechanism: An accessible feedback mechanism for LIDACs was established to ask questions, voice concerns, and share their own stories related to the initiative. It was important to actively listen and respond to the feedback, build trust, and show that their input matters.

The outreach events have been largely virtual; documentation can be found on the cleanairnortheastflorida.com website. With this comprehensive approach, the NEFL MSA demonstrated their commitment to genuine collaboration and meaningful engagement with LIDACs throughout the project’s implementation process, fostering a respectful and productive relationship.

JTA, an EVOLT project partner and sub-awardee for the Mass Transit Expansion and Mobility Hubs Initiative reduction measure, conducted extensive outreach and community engagement while developing the MOVE2027 plan (attached). One decision resulting from this outreach and community engagement was the beneficial location of the mobility hubs. Five of these locations have been included in this EVOLT application.

The City of Jacksonville and the NEFL MSA are committed to continuing meaningful public engagement for the project and will proactively implement a community participation process (CPP) based on equity that seeks full representation from the public based on the community’s demographics. To this end, COJ has committed to subaward to a nonprofit organization (including stipends for LIDAC community members on program and community engagement around mobility hubs) to assure equity in the representation of community input for the bike/ped and JTA mass transit expansion. Using EPA’s *Capacity Building Through Effective Meaningful Public Engagement* booklet to further expand public engagement during the implementation phase of the project, COJ will keep the public informed, engaged, and involved.

The community participation process will include the following steps:

* Identify the impacted communities.
* Educate all, including the MSA and all stakeholders, on the unique needs and aspirations of the affected communities.
* Inform the public of upcoming or ongoing projects that may affect them through multiple widely accessible information streams.
* Authentically communicate with the community to receive their input on the proposed project by offering multiple opportunities for feedback.
* Create continuous open communication with community members and other interested parties.
* Evaluate and adjust based on feedback received from community members and other interested parties.

Any potential risks to the communities, such as project/process impacts, public criticism, lack of participation, and/or community confusion, should be identified so that they may be mitigated through the engagement plan's actions and efforts.[[18]](#footnote-19)

Effective practices will be utilized to ensure optimal participation from residents of LIDACs to increase the likelihood of participation. Those practices include:

* Outreach to facilitate the development of stakeholder contact lists.
* Consultations with individuals or organizations that represent and or service LIDACs.
* Conducting public input sessions both in-person and virtually.

The Community Participation Plan will include in-person meetings, virtual meetings, and digital surveys to ensure that all stakeholders can participate and share their ideas and opinions about the project. This combination of in-person and virtual meetings and digital surveys will help make public involvement more than just a paper exercise or a box to check off in the planning process.

**5. Job Quality**

Through NEFL Green Workforce Partnership – Transit & Infrastructure Accelerator. The program fund training & wraparound services to encourage participation and will work with colleges to publicize and promote work opportunities. Sites of Mobility hubs, EV charge installs and cities transitioning to Electric Vehicles will serve as the focal point for training and job placement and apprentices.  
  
City of Jacksonville’s goal for job quality is to strengthen, integrate, and grow the existing workforce with measures funded. Jacksonville is one of the largest manufacturing regions in Florida and Florida, as America’s third largest state and is central to the booming Southeast. The Jacksonville region is naturally situated for growth and ensuring success of this project. City of Jacksonville is partnering with, JAXUSA Partnership, Members of the TPO Clean Fuels Coalition to leverage existing incentive programs designed to be a catalyst for economic growth and maximize the region’s unique resources to aggressively recruit jobs and capital investment to our seven-county focus area in Northeast Florida. Jobs created by the implementation of these reduction measures will follow the principles that comprise a good job according to the Department of Labor wherever possible:

E-Volt focused job training and educational programs for low-income and disadvantaged populations will support the regional transition to EV adoption and create a knowledgeable workforce of drivers and maintenance staff. In addition, existing technicians will need training to maintain and repair EVs. We are working with our local trade schools and manufacturers to secure EV training and enrich current apprenticeship programs with our program partner, JEA, and within the City of Jacksonville Fleet Division.

The NEFL Green Workforce Partnership – Transit & Infrastructure Accelerator program will fund training & wraparound services to encourage participation and will work with area colleges to publicize and promote work opportunities. Sites of Mobility hubs, EV charger installations and cities transitioning to electric vehicles will serve as the focal point for training and job placement and apprentices.

The Jacksonville region will strengthen, integrate, and grow the existing workforce with the measures funded. Jacksonville, one of the largest manufacturing regions in Florida and atop America’s third largest state, is central to the booming Southeast. All of these factors position the Jacksonville region as naturally situated for growth and ensuring success of this project. The City of Jacksonville, in partnership with JAXUSA Partnership and members of the North Florida Clean Fuels Coalition, seeks to leverage existing incentive programs designed as a catalyst for economic growth and maximize the region’s unique resources to aggressively recruit jobs and capital investment to our seven-county focus area in Northeast Florida. Jobs created by the implementation of these reduction measures will follow the principles that comprise a good job according to the Department of Labor wherever possible:

**Recruitment and Hiring:** Qualified applicants, especially those from underserved communities, are actively recruited.

**Benefits:** Full-time and part-time workers are provided family-sustaining benefits that promote economic security and mobility.

**Diversity, Equity, Inclusion, and Accessibility (DEIA):** All workers have equal opportunity. Workers are respected, empowered, and treated fairly.

**Job Security and Working Conditions:** Workers have a safe, healthy, and accessible workplace built on input from workers and their representatives. Workers have job security without arbitrary discipline or dismissal. They have adequate hours and predictable schedules.

**Organizational Culture:**All workers belong, are valued, contribute meaningfully to the organization, and are engaged and respected, especially by leadership.

**Pay:** All workers are paid a stable and predictable living wage before overtime, tips, and commissions. Workers' compensation is fair, transparent, and equitable. Workers' wages increase with increased skills and experience.

**Skills and Career Advancement:** Workers have equitable opportunities and tools to progress to future good jobs within or outside their organizations. Workers have transparent promotion or advancement opportunities. Workers have access to quality employers or labor management-provided training and education.[[19]](#footnote-20)

**6. Programmatic Capability and Past Performance**

**6.a. Past Performance**

The City of Jacksonville has significant documented experience receiving and executing federal grants that cover multiple departments and functions. This application section will focus on our Fire and Rescue Department, which has a multi-year, proven track record of executing grant-funded projects. Their team, as well as other COJ areas, has experience following federal and non-federal contract and procurement requirements including, but not limited to, Buy America, Americans with Disability Act, and Davis Bacon Act and a proven track record of successfully completing projects within the grant deadlines. Most recent examples of completed projects include:

**South Shores "B" - Acquisition and Demolition of 22 Flood-prone Structures**

* Assistance agreement number – HMGP 4337-014
* Agency and assistance listing number (if applicable) – DHS/FEMA
* Brief description of the agreement – Acquisition and demolition of a flood-prone property
* Contact from funding agency – Carmen Acosta, (850) 332-1268, [Carmen.Acosta@em.myflorida.com](mailto:Carmen.Acosta@em.myflorida.com)
* The project was successfully implemented and met all compliance requirements in a timely fashion with no issues.

**Regional Preparedness Against Acts of Terrorism**

* Assistance agreement number – EMW-2023-SS-00058-S01
* Agency and assistance listing number (if applicable) – DHS/FEMA
* Brief description of the agreement in no more than two sentences – The purpose of the Fiscal Year 2023 UASI grant is to provide funding to enhance regional preparedness and capabilities in designated high-threat, high-density areas against acts of terrorism. The Jacksonville MSA (Duval, St. Johns, Baker, Clay, and Nassau County) was the target area for the funding.
* Contact from funding agency – Felicia P. Pinnock, (850) 815-4343, [Felicia.Pinnock@em.myflorida.com](mailto:Felicia.Pinnock@em.myflorida.com)
* This project is currently being successfully implemented with no issues.

**Regional Catastrophic Preparedness Grant**

* Project title – FY2019 RCPGP Resilience initiative Project
* Assistance agreement number – EMA-2019-GR-00009
* Agency and assistance listing number (if applicable) – DHS/FEMA
* Brief description of the agreement in no more than two sentences – The Resilience Initiative Project addresses the Planning, Organization, Training, and Exercises (POTE) solution areas through a holistic approach.
* Contact from funding agency – Holly Hollingsworth, (770) 827-2546, [Holly.hollingsworth@fema.dhs.gov](mailto:Holly.hollingsworth@fema.dhs.gov)
* The project is ongoing with no issues. The required reports have all been submitted promptly.

**Regional Catastrophic Preparedness Grant**

* Project title – FY2021 Addressing Critical Failure Points from Extreme Temperature Events
* Assistance agreement number – EMA-2023-CA-APP-00003
* Agency and assistance listing number (if applicable) – DHS/FEMA
* Brief description of the agreement in no more than two sentences – Three-year program focusing on the impacts of extreme temperatures (heat and cold) encompassing:
* Critical Infrastructure Risk Analysis, Stakeholder Engagement Workshops, Vulnerability and Capacity Assessments, Emergency Management Training, and Emergency Operations Plan updates.
* Contact from funding agency – Holly Hollingsworth, (770) 827-2546, [Holly.hollingsworth@fema.dhs.gov](mailto:Holly.hollingsworth@fema.dhs.gov)
* The project is ongoing with no issues. The required reports have all been submitted promptly.

**Watercraft CBRNE Prevention and Response Boat**

* Assistance agreement number – EMW-2022-PU-00202
* Agency and assistance listing number (if applicable) – DHS/FEMA
* Brief description of the agreement in no more than two sentences – Purchase of a 37' CBRNE capable fire suppression boat for prevention and response with boating equipment/supplies
* Contact from funding agency – Mel Vanterpool, (202) 445-8497, [melvin.vanterpool@fema.dhs.gov](mailto:melvin.vanterpool@fema.dhs.gov)
* The project is ongoing with no issues. Required semi-annual reports have been submitted promptly.

**6.b. Reporting Requirements**

The City of Jacksonville has a long history of documented experience in timely meeting or exceeding federal grant reporting requirements. This is demonstrated across various departments within the City’s function. Each area has dedicated staff compiling the required information related to the relevant grants under their purview and ensuring that all program and reporting requirements are followed. The respective program staff ensures that federal awarding agencies are apprised of program implementation progress and effectively communicates if targets are being met and, if they are not, a plan to ensure that modifications are made to ensure compliance. In addition to these various program staff, the city has a dedicated Grants Division, including a Compliance Manager, which further helps to ensure timely reporting.

**6.c. Staff Expertise**

The City of Jacksonville’s grant administration team comprises **Ashantae Green, Sustainability Manager, Matthew Fall, Bicycle-Pedestrian Coordinator, and Larry Finkelstein, Grants Compliance Officer.** The team has 32 years of combined experience managing and administering grants and programs.

**Ashantae Green** has been with the City of Jacksonville for five months, serving as the City’s first Sustainability Manager. She was a sustainability and resilience subject matter expert to Jacksonville city council for the last 5 years prior to appointment. Ashantae is the lead for the Jacksonville, FL MSA’s CPRG planning grant. She will continue to lead efforts for the implementation grant. She will work with staff, consultants, local governments, academic institutions, and regional non-profit partners to identify projects, measure GHG emission reductions, and ensure services are provided to LIDAC communities. As Sustainability Manager for the City of Jacksonville, Ashantae leads a dedicated team with a robust understanding of grant management, energy efficiency, renewable energy, resilience, energy equity, outreach, and education. Ashantae Green has twelve years of experience in grant and project management.

**Matthew Fall** has been with the City of Jacksonville for two and a half years, serving as the Bicycle-Pedestrian Coordinator. He will manage the City of Jacksonville Bicycle-Pedestrian Programs, coordinate the addition of new trails, upgrade existing ones, enhance safety measures for existing ones, and launch the E-bike sharing program with his dedicated team of staff. He will also help with other transportation-related projects and activities. Matt Fall has over eight years of experience in grant and project management.

**Larry Finkelstein** has been with the City of Jacksonville for almost 12 years, serving as the Grants Compliance Officer. He will provide grant administration and reporting support. Some of those functions include but are not limited to reviewing and managing grant revenues and expenditures, determining whether project costs/expenditures are allowable, allocable, and reasonable and researching discrepancies, reviewing, interpreting, and ensuring compliance with applicable federal, state, and local financial assistance regulations, policies, procedures, and practices. Larry has just shy of 12 years of experience in grant and project management.

**7. Budget**

Please see the attached budget using EPA’s CPRG optional detailed budget table and the separate budget narrative for more detail.

**7.a. Budget Detail**

**Overview**

Proposed budget by category. Please note there are no indirect costs.

|  |  |
| --- | --- |
| **CATEGORY** | **TOTAL** |
| Total personnel | *$479,943* |
| Total fringe benefits | *$159,773* |
| Total travel | *$35,567* |
| Total equipment | *$2,499* |
| Total supplies | *$0* |
| Total contractual | *$22,337,143* |
| Total construction | *$26,975,455* |
| Total other | *$9,619* |
| TOTAL FUNDING | *$49,999,999* |

All three measures by percentage

|  |  |  |
| --- | --- | --- |
| **Project Name** | **Total Cost** | **% of Total** |
| *EV Fleet Transition* | *$16,702,702* | *33%* |
| *Mass Transit Expansion & Mobility Hubs* | *$13,219,833* | *26%* |
| *Bicycle & Pedestrian Programs* | *$20,077,464* | *40%* |

**Mass Transit Expansion and Mobility Hubs Initiative**

This measure includes expanding five mobility hubs – three in Duval County (2024-2027), one in Clay County (2028), and one in St. Johns County (2029). Mobility hubs, which co-locate and integrate different modes of transportation, play a crucial role in transportation networks as transfer points between modes. Mobility hubs enable safe, reliable, and convenient access to public transit, micro-transit, micro-mobility, and other services and amenities.

* Personnel $141,576
* Fringe Benefits $53,257
* Travel $17,783
* Equipment $0
* Supplies $0
* Contractual $525,000
* Construction $12,500,00
* Other $0
* Indirect funds $0
  + **Total** **$13,219,833**

**Bike-Ped Program Initiative**

This measure consists of several projects, including constructing 153 linear miles of protected/separated bike lanes, an E-bike voucher program, and an E-bike share (micro-mobility) program that COJ will execute and manage. It seeks the encouragement of active transportation, improved non-motorized safety enhancement, and provision of modal options for underserved communities.

* Personnel $141,577
* Fringe Benefits $53,258
* Travel $17,783
* Equipment $0
* Supplies $0
* Contractual $8,089,772
* Construction $11,765,455
* Other $9,619
* Indirect funds $0
  + **Total** **$20,077,464**

**EV Fleet Transition Initiative**

This measure seeks to transition 240 fleet vehicles to EVs within the City of Jacksonville/ Duval County, Duval County Public Schools District (DCPS), and various cities within the Jacksonville-MSA. By adopting transportation electrification, the region is tangibly demonstrating environmental sustainability. The vehicles will be rolling dashboards of sustainability that will bring a new level of awareness and education about sustainability to the citizens of the Jacksonville MSA.

* Personnel $196,791
* Fringe Benefits $53,257
* Travel $17,783
* Equipment $2,499
* Supplies $0
* Contractual $13,722,371
* Construction $2,710,000
* Other $0
* Indirect funds $0
  + **Total** **$16,702,702**

**7.b. Expenditure of Awarded Funds**

The City of Jacksonville (COJ) is the recognized municipal entity for the consolidated Jacksonville/Duval County government. As a grantee of federal and state funds, COJ maintains Government Approved Accounting Principles, a federally approved system of financial controls, and participates in an annual single audit. Implementing the program, the Planning and Development Department and Sustainability Office are fully funded functions of COJ, a municipality with revenues exceeding two million dollars annually. The City’s internally developed cloud-based accounting system fulfills all federal requirements regarding funding. The Transportation Division of the Planning Department focuses on transportation policy and issues and coordinates the City’s overall mobility needs. The Department and Division have a longstanding history of successfully administering federal programs and continue to demonstrate their ability to manage program funds and execute program activities efficiently.

**7.c. Reasonableness of Cost**

All project costs will advance the implementation of the proposed GHG reduction measures and are responsive to the goals of the EPA CPRG Program. Appendix A. Budget Spreadsheet & Narrativeincludes a detailed justification of costs, including a detailed breakout of requested funding for each item budgeted in the project scope. As shown in section 2.c., the total cost effectiveness of the E-VOLT project is **$32.06 per mtCO2e reduction** for the period of **2025 through 2030** which strengthens the reasonableness of the project cost.

**Mass Transit Expansion and Mobility Hubs Initiative**

The project’s budget includes personnel, travel, construction, and contractual services for a total of $13,219,833. These are necessary activities to implement the reduction measure addressed by the E-VOLT Project. The project will accomplish the goals of GHG emission reduction and climate resilience by paving the way to more sustainable public transport modes to foster better regional connectivity and decrease carbon emissions. The contractual and construction services costs were based on invoicing and estimated pricing from 2024. One full-time City Staff position will be partially funded through the grant for dedicated time to the project. Travel costs were based on staff attending up to four regional/national conferences annually and local/regional travel for meetings, collaboration, and site visits. The bulk of the budget is in the construction section (building mobility hubs), which is necessary to accomplish the GHG emission reductions, and the other categories act as the needed support for that scope of work.

**Bike-Ped Program Initiative**

The project’s budget includes personnel, travel, equipment, construction, contractual and other (print and outreach materials) services for a total of $20,077,464. These are necessary activities to implement the reduction measure addressed by the E-VOLT Project. The project will accomplish the goals of GHG emission reduction and climate resilience by encouraging active transportation, improved non-motorized safety enhancement, and provision of modal options for underserved communities. The equipment, contractual, and construction services costs were based on invoicing and estimated pricing from 2024. One full-time personal position will be partially funded through the grant. Travel costs were based on staff attending up to four regional/national conferences annually and local/regional travel for meetings, collaboration, and site visits. The bulk of the budget is in the construction section (building protected and separated bike lanes), which is necessary to accomplish the GHG emission reductions, and the other categories act as the needed support for that scope of work.

**EV Fleet Transition Initiative**

The project’s budget includes personnel, travel, construction, and contractual services for a total of $16,702,702. These are necessary activities to implement the reduction measure addressed by the E-VOLT Project. The project will accomplish the goals of GHG emission reduction and climate resilience by adopting transportation electrification and bringing a new level of awareness and education about sustainability to the citizens of Jacksonville. The contractual and construction services costs were based on invoicing and estimated pricing from 2024. One full-time City Staff personnel position will be partially funded through the grant for dedicated time to this project. Travel costs were based on attending four state or national conferences yearly and local/regional travel for meetings, collaboration, and site visits. The bulk of the budget is in the contractual section (predominately the differential costs for purchasing EVs in lieu of gas and diesel vehicles), which are necessary to accomplish the GHG emission reductions. Other categories act as the needed support for that scope of work. Providing this cost differential greatly enhances the probability of accelerated EV conversions by removing a key obstacle expressed by fleet managers and municipal budget staff.

**Conclusion**

The City of Jacksonville respectfully requests $49,999,999 in Climate Pollution Reduction Grant funding from the Environmental Protection Agency for the Northeast Florida E-Volt Project. This funding will be used to complete three reduction measures prioritized within the NEFL PCAP: the Mass Transit Expansion and Mobility Hubs Initiative, the Bike-Ped Program Initiative, and the EV Fleet Transition Initiative. The city has prioritized this project to address needed GHG emission reductions, Justice40 equity, and quality of life challenges.

1. [B08006: Sex of Workers by Means of ... - Census Bureau Table](https://data.census.gov/table/ACSDT1Y2022.B08006?q=bicycle%20commuting%20Jacksonville) [↑](#footnote-ref-2)
2. <https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf> [↑](#footnote-ref-3)
3. https://5891093.fs1.hubspotusercontent-na1.net/hubfs/5891093/Denvers%202022%20Ebike%20Incentive%20Program%20Results%20and%20Recommendations.pdf [↑](#footnote-ref-4)
4. [Electrification Rebates (jea.com)](https://www.jea.com/business_resources/rebates_for_businesses/electrification_rebates_program/) [↑](#footnote-ref-5)
5. https://northfloridacleanfuels.com/uploads/Clean-Fuels-Master-Plan-Report\_Final\_240209.pdf [↑](#footnote-ref-6)
6. https://northfloridacleanfuels.com/uploads/Clean-Fuels-Master-Plan-Report\_Final\_240209.pdf [↑](#footnote-ref-7)
7. https://www.irs.gov/credits-deductions/commercial-clean-vehicle-credit [↑](#footnote-ref-8)
8. https://www.irs.gov/credits-deductions/alternative-fuel-vehicle-refueling-property-credit [↑](#footnote-ref-9)
9. https://www.nrel.gov/docs/fy15osti/62943.pdf [↑](#footnote-ref-10)
10. https://www.climatepolicyinitiative.org/publication/harnessing-the-transformative-potential-of-the-greenhouse-gas-reduction-fund/ [↑](#footnote-ref-11)
11. <https://www.irena.org/Digital-content/Digital-Story/2019/Apr/How-To-Transform-Energy-System-And-Reduce-Carbon-Emissions> [↑](#footnote-ref-12)
12. https://www.epa.gov/air-trends/particulate-matter-pm25-trends [↑](#footnote-ref-13)
13. https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#effects [↑](#footnote-ref-14)
14. https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm [↑](#footnote-ref-15)
15. https://highways.dot.gov/public-roads/julyaugust-2003/living-noise [↑](#footnote-ref-16)
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18. https://www.epa.gov/system/files/documents/2023-09/epa-capacity-building-through-effective-meaningful-engagement-booklet\_0.pdf [↑](#footnote-ref-19)
19. https://www.dol.gov/general/good-jobs/principles [↑](#footnote-ref-20)