

Municipal Empowerment for Clean Energy and Conservation

EPA CPRG funds would enable an unprecedented 63 MW of brownfield and landfill solar to be developed in Northeast Ohio within a timeframe that will put the region on a pathway toward achieving its 2030 and 2050 emissions reduction goals. Central to this project will be the closure of a peaking coal-fired power plant within the Cleveland-Elyria MSA region. By pairing the development of utility-scale solar with the creation of a 1,000+ acre public lakefront nature preserve on a blighted brownfield site, CPRG funding will also be used to pair two priority PCAP greenhouse gas reduction measures: Clean Electricity & Nature Based Solutions, thus creating a replicable model through which renewable energy development enables conservation, habitat restoration, and the reclamation of derelict land. CPRG funding will do this by making solar affordable for local communities, by helping to overcome regulatory barriers, and by giving local governments the autonomy to direct project benefits to communities with the most need.

Section 1: Overall Project Summary and Approach

A. Description of GHG Reduction Measures

The state of Ohio stands at a critical juncture in its energy trajectory. Thanks to the infusion of funds from the Bipartisan Infrastructure Law and the Inflation Reduction Act, Ohio is utilizing its existing manufacturing base to become a powerhouse for solar and EV manufacturing. New clean energy projects have already spurred over \$8 billion in investment and helped establish over 8,612 good-paying Ohio-based clean energy jobs.¹ But while the state ranks third in the nation for manufacturing, Ohio is the fifth worst greenhouse gas emitter, currently relying on fossil fuels for approximately 80% of its electricity generation.² If Ohio were a country, it would be the 30th largest GHG emitter in the world.³

Ohio has fallen behind the rest of the nation in the transition to clean energy. Recent scandals, such as the HB 6 coal and nuclear bailout, and policy reversals, such as the rollback of Ohio's renewable energy portfolio standards, have impeded the state's uptake of locally-generated renewables.⁴ FirstEnergy, the dominant investor-owned utility in Northern Ohio, recently announced the withdrawal of its 2030 climate commitments in favor of keeping coal fired power plants online.⁵ This narrative demands change - and MECEC Coalition members are seeking to alter the renewable energy landscape.

Ohio's fossil fuel dependence comes at a significant cost to the environment, public health, and long-term sustainability for the region. The adverse effects of fossil fuel dependency are evident in air and water pollution, greenhouse gas emissions, and the degradation of natural ecosystems. According to U.S. EPA data, fuel consumption for electricity generation was responsible for 15.3% of nitrogen oxides (NO_x), 5.1% of fine particulate matter (PM_{2.5}), and 67.7% of sulfur dioxide (SO₂) in Ohio during 2021.⁶ While air quality has improved dramatically in Northeast Ohio since the passage of the 1970 Clean Air Act Amendments, the region

¹ Climate Power. (2024). State of the Clean Energy Boom Report.

<https://climatepower.us/wp-content/uploads/2024/03/State-of-the-Clean-Energy-Boom-Report-March-2024.pdf>

² U.S. Energy Information Administration (U.S. EIA). (2023). *Table 1. State energy-related carbon dioxide emissions by year*. [Data Set]. <https://www.eia.gov/environment/emissions/state/excel/table1.xlsx>; Magnet. *We are forging a vision for the future of manufacturing in Northeast Ohio*. Ohio Department of Development. <https://www.manufacturingsuccess.org/>

³ Global Carbon Atlas. (2024). *Country emissions map*. <https://globalcarbonatlas.org/emissions/carbon-emissions/>; U.S. EIA *supra*, note 2

⁴ Haidet, R., Lai, L. & DeNatale, D. (2024, Feb. 13). *Former FirstEnergy executives, ex-state regulator plead not guilty to new indictments in House Bill 6 bribery scandal*. WKYC.

<https://www.wkyc.com/article/news/local/ohio/house-bill-6-scandal-indictments-ohio-attorney-general-dave-yost/95-72fe0337-f5e6-4191-9973-f5cb7fac4af0>; EcoWatch. (2014, May 28). *Ohio becomes first state to roll back renewable energy mandate*. <https://www.ecowatch.com/ohio-becomes-first-state-to-roll-back-renewable-energy-mandate-1881917438.html>; McKenna, P. (2017, March 31). *Ohio House passes bill to roll back renewable energy standards, again*. Inside Climate News. <https://insideclimatenews.org/news/31032017/ohio-clean-energy-fossil-fuels-john-kasich/>

⁵ Malik, N., Chediak, M., & Natter, A. (2024, Feb. 9). *FirstEnergy scraps 2030 climate goal in rare embrace of coal*. Bloomberg. <https://www.bloomberg.com/news/articles/2024-02-09/firstenergy-scraps-2030-climate-goal-in-rare-embrace-of-coal>

⁶ U.S. Environmental Protection Agency (U.S. EPA). (2024). *Air Emissions Inventories: Air Pollutant Emissions Trends Data*. <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>

continues to suffer from persistent air quality challenges. According to an analysis completed for this application using U.S. EPA's CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA), pollutant emissions from electricity generation in the Cleveland-Elyria MSA caused 28-64 premature deaths, 3-26 nonfatal heart attacks, 562 asthma exacerbations, and 2,792 lost work days during 2023. Public health costs of air pollution from electricity generation totaled \$312.9-\$705.4 million. While everyone in the region suffers the impacts of air pollution, people of color in the region are exposed to 10.2% higher levels of pollution than white residents, and this disparity has persisted for decades.⁷ Residents of redlined neighborhoods are exposed to 18.4% more pollution than neighborhoods graded A or B by the Home Owners' Loan Corporation (HOLC).⁸ Considering the pressing need to mitigate climate change, reduce carbon dioxide emissions, and improve public health, it is imperative that the region transitions to clean electricity. **Clean electricity is therefore a primary GHG reduction measure listed in the Cleveland-Elyria MSA region's Priority Climate Action Plan (PCAP); implementation of this measure will yield significant cumulative GHG emissions reductions by 2030 and beyond.**

Ohio's industrial past has left a legacy of contaminated brownfield and Superfund sites. Three hundred eighty-two (382) brownfield sites have been listed in the Ohio EPA's brownfield inventory database since 2006. Most of the state's former landfills and brownfields, even if capped and/or remediated, continue to sit as vacant, unusable land; land that blights communities and restricts economic development potential due to the myriad challenges associated with ownership, management, and reuse. In Ohio, nearly 350,000 acres of this vacant land is close to transmission infrastructure, ready for local renewable energy to be deployed according to a brownfields mapping study done by The Nature Conservancy.⁹ The disproportionate environmental and public health burden of landfills and brownfields often falls on low-income communities, rural communities, and communities of color, further exacerbating health disparities and social inequities. Additionally, Ohio has experienced significant deforestation, the loss of wetland ecosystems, and associated water quality degradation. Today, the restoration of riparian and floodplain areas is key to preserving and enhancing water quality in Lake Erie, which is damaged by nutrient and pollutant loading from urban, industrial, and agricultural runoff. **Nature-based solutions are listed as a primary GHG reduction measure in the Cleveland-Elyria MSA region's PCAP, with an emphasis on increasing tree cover, access to connected greenspace, and protecting and restoring the region's water systems.** The MECEC project will advance nature based solutions to environmental challenges by pairing municipally-led solar development with conservation activities across six sites on or adjacent to significant brownfields and landfills - four of which are located in Justice40 communities - in Cuyahoga and Lake County. Revenue generated from local renewable energy deployed on these vacant brownfields can be used to fund conservation and habitat restoration, in addition to yielding public health and other community benefits, responding to genuine concerns expressed by Ohioans for decades.

To disrupt the cycle of continued extraction and degradation of landscapes and communities, MECEC Coalition members will work together in a unique municipal utility partnership in collaboration with a local conservancy and a range of community partners to significantly expand local renewable energy while restoring former industrial sites, brownfields, and landfills into public greenspace and wildlife habitat. The MECEC Coalition will work to implement the greenhouse gas reducing projects described below under the measures of Clean Electricity and Nature-Based Solutions.

⁷ Based on data from: Tessum, Christopher W., et al. (2021). PM_{2.5} 5 pollutants disproportionately and systemically affect people of color in the United States. *ScienceAdvances* 7 (18). <https://doi.org/10.1126/sciadv.abf4491>

⁸ Id.

⁹ The Nature Conservancy. (2022, Nov. 2). Creating a clean energy future in Ohio: Mining the sun.

<https://www.nature.org/en-us/about-us/where-we-work/united-states/ohio/stories-in-ohio/creating-clean-energy-future/>

Proposed GHG Reduction Measure #1 - Clean Electricity

The City of Cleveland, Cuyahoga County, and the City of Painesville are uniquely positioned to implement utility-scale solar projects because each local government has its own municipal utility with combined regulatory authority and physical infrastructure to interconnect and operate these projects.

- Cleveland Public Power (CPP) is the City of Cleveland's 118-year-old municipal utility, and Ohio's largest municipal electric power provider. CPP serves 70,000 customers, with a service area covering two-thirds of the city's geography.
- Cuyahoga Green Energy (CGE) is Cuyahoga County's newly established municipal electric utility, formed in 2021 with a goal of increasing energy resilience and renewable energy throughout the region. CGE's focus is to develop microgrids and other renewable energy projects.
- Painesville Municipal Electric is Painesville's 136 year-old utility. Painesville Electric serves 12,500 customers, with a service area covering the city's entire geography.

All three utilities are committed to the expansion of renewable energy throughout the region – with a focus on communities most impacted by climate change and with least access to renewable energy solutions. Unlike the region's investor-owned utilities, municipal utilities in Ohio can own generation and are free of excessive Public Utilities Commission of Ohio (PUCO) regulatory oversight. By connecting the proposed projects directly to their existing distribution infrastructure, they will avoid expensive interconnection costs and long interconnection queues. The EPA, through CPRG funding, has the opportunity to fund GHG-reducing solar projects in a region where municipal utilities such as Cleveland Public Power, Cuyahoga Green Energy, and Painesville Municipal Electric provide the only real pathway to deploy renewable energy at scale.

Proposed GHG Reduction Measure #1 - Clean Electricity - Major Features

A. Painesville Solar and Battery Project - 35 MW Solar and 10 MW Battery - Painesville Municipal Electric will replace its peaking coal fired power plant with a 35 MW solar installation and a 10 MW battery back-up system. The coal fired power plant has been in operation since 1888 and, at its height, ran at a capacity of 36 MW. As mandated by the Ohio EPA, the plant's operating capacity has been reduced by 90% from 2017 to 2024 due to the magnitude of hazardous air pollutants it produces. Today, the plant is operated as a peaking plant, which allows Painesville Electric to reduce its peak electric loads and costs for its customers. This practice, while economically critical for keeping rates low, continues to expose surrounding residents to harmful air pollutants. The proposed solar installation will be located on a 140-acre section of a 1,100-acre former salt mining and chemical manufacturing facility site.

The Painesville solar array will ensure success of the Clean Energy GHG reduction measure by significantly reducing the amount of fossil fuel electricity that Painesville Municipal Electric must source from the grid, while replacing that generation with clean energy. Analysis by engineering firm Go Sustainable Energy shows that the 35 MW array, combined with the 10 MW battery storage system, will be effective in reducing Painesville's peak electric loads, helping Painesville Electric achieve sufficient cost reductions to eliminate the need for the coal fired plant. The solar array will also stabilize the utility's operating costs, rendering the utility less susceptible to volatile fluctuations in the electricity market. Furthermore, CPRG funding will allow Painesville to provide locally-generated renewable energy to its customers at a reduced rate.

B. Cuyahoga County and Cleveland Solar Projects - 28 MW - Cuyahoga County and the City of Cleveland will join together to deploy 28 MW of renewable energy through five brownfield and landfill solar projects. Two of these projects – the Kolthoff Road Landfill array and the Garfield Heights array – will provide clean, behind-the-meter electricity to two critical City and County facilities: the Cleveland Hopkins International Airport and the Cuyahoga County Central Services complex. Three of these projects – the Brooklyn Landfill array, the Harvard Refuse Landfill array, and the West 11th Landfill array – will supply CPP and CGE customers by connecting directly to CPP's distribution grid. These five locally-generated renewable

energy projects will ensure success of the Clean Energy GHG reduction measure by replacing grid-purchased energy, which is comprised predominantly of fossil fuel generation in this region, and will allow CPP to offer the energy to its customers at a reduced rate.

Brooklyn Landfill - 5.3 MW - The 77-acre Brooklyn Landfill is already home to a 4 MW solar array that provides power to Cuyahoga County government buildings through a unique virtual net metering arrangement with CPP. Ohio-based solar developer, IGS Energy, owns the system and sells electricity to the County through a power purchase agreement (PPA). Electrons are sent onto the CPP distribution grid through an existing CPP owned substation. This pioneering landfill project was the first of its kind in the state of Ohio and was constructed with Ohio made solar panels, an Ohio made racking system, and a largely Ohio based workforce. The remainder of the site has not yet been developed because of the high cost of the original PPA (see p.8). CPRG funding would provide the resources needed to scale, by affordably developing the rest of the landfill, adding an additional 5.3 MW of solar to CPP's and Cuyahoga County's energy portfolio.

Garfield Heights - 2.8 MW - Cuyahoga County will develop 2.8 MW of rooftop and ground-mounted solar at its new Central Services Campus. This behind the meter system will offset the campus's electricity usage, thereby significantly reducing the demand for grid-sourced electricity. This is the first utility-scale solar project in the City of Garfield Heights. The Central Services Campus is underdevelopment, with construction scheduled to be complete in 2027.

Kolthoff Road Landfill - 7 MW - The 20-acre Kolthoff Road landfill is owned by and geographically adjacent to the Cleveland Hopkins International Airport. The airport is managed by the City Of Cleveland's Department of Port Control. The proposed 7 MW solar array will supply power to the airport through the airport's southern substation, offsetting approximately 35% of the airport's load during normal operation and reducing demand for grid-sourced electricity. This will be the first local solar project to supply electricity to Cleveland's only international airport.

Harvard Refuse Landfill - 9.8 MW - The Harvard Refuse Landfill is situated at the confluence of three communities - the City of Cleveland, the Village of Cuyahoga Heights, and the City of Garfield Heights. The landfill facility operated from approximately 1949 until 1988 and is under the jurisdiction of two approved health departments: Cuyahoga County Board of Health (CCBH) and Cleveland Department of Public Health (CDPH). It is bisected by Mill Creek, a 12-mile tributary of the Cuyahoga River.

The Harvard Landfill has been under receivership for the past 15 years and is considered one of the many "orphaned" landfills in Ohio. A temporary concrete crushing operation located on the site has also created local air quality issues. Concerns about leachate, methane leakage, and air pollution have prompted the Slavic Village Community Development Corporation (CDC) to engage local residents through listening sessions. Slavic Village CDC has worked with the Ohio EPA to provide methane sensors to nearby households. While these sensors have failed to register detectable levels of methane, concerns about dust from the active concrete operation persist. The Cuyahoga County Solid Waste District has engaged an engineering consultant to perform a Phase 1 Environmental Site Assessment to evaluate slope stability, the extent to which methane is still being released, leachate issues, and the effectiveness of the existing landfill cap. The results of this study will be used to determine if additional remediation measures are needed.

If awarded, the Coalition will utilize EPA funds to develop 9.8 MW of solar on the landfill. The power from this site will be supplied to local Cleveland residents through the local CPP distribution grid to offset fossil fuel sourced generation. This installation will serve as impetus to remediate any remaining environmental issues uncovered during the Phase 1 study. Known issues to be addressed by the Developer include some slope stability concerns on the southern edge of the site and mitigating dust levels from the concrete crushing operation.

West 11th Landfill - 3.2 MW - The 12.6-acre West 11th Landfill is situated within the Old Brooklyn Neighborhood, just west of Cleveland's downtown. The property is partially surrounded by houses (to the north and south), by West 11th St. to the west, and by the Jennings Freeway to the east. The proposed 3.2 MW landfill will supply CPP residents through CPP's distribution network. Cleveland and Cuyahoga County will

work with the Old Brooklyn Community Development Corporation and local residents to preserve the interests of the local community as the project is being developed. A small park area with an educational kiosk and a local art installation will be installed at the entrance to the site.

Proposed GHG Reduction Measure #1 - Clean Electricity - Tasks & Milestones

Tasks: While each project has its own unique characteristics, all will follow a similar development pathway. Major tasks designed to ensure success of the Clean Electricity GHG Reduction Measure will include:

- Advisory Committee: The formation of an advisory committee composed of representatives from community-based organizations, community development organizations, local governments, and residents to help coordinate and oversee community engagement activities.
- Quarterly Community Engagement Sessions: To gather community feedback, integrate feedback into the development process, and address resident concerns.
- Pre-Apprenticeship Training Program Implementation: Formation and implementation of a pre-apprenticeship program to prepare participants for renewable energy jobs through local workforce development organization, Manufacturing Works.
- Solar Installer Selection: Competitive procurement of a solar installer(s) through a formal RFP process. Procurement for the Painesville and Cuyahoga County sites will happen in parallel.
- System Engineering and Design
- Interconnection Studies: To evaluate impact of proposed systems on the local distribution grid.
- Solar System Construction: Including needed distribution system upgrades and expansion.
- Interconnection of Systems
- Decommissioning of Painesville Power Plant
- Ongoing Monitoring and Reporting: Data collection and analysis related to solar productivity, GHG emissions reductions, secondary pollutant reductions, pre-apprenticeship programming, job creation, and outreach activities.

Key Milestones: The following events represent key milestones that will need to be achieved for the projects to move forward to the next stage of development and/or ensure the success of the proposed projects:

- Site Control and Ownership
- Permit Approvals
- Selection of Qualified Developer(s)/Solar Installer(s)
- Securing Project Equipment - with an emphasis on domestically sourced content
- Activation of Solar and Battery Systems
- Decommissioning of Painesville Power Plant

Proposed GHG Reduction Measure #1 - Clean Electricity - Risks & Assumptions

- **Interconnection:** Large scale solar projects often run the risk of long interconnection delays. Since the proposed projects are interconnecting to the local electric distribution grid rather than the regional PJM transmission grid, these projects will bypass the high costs and long wait times associated with PJM's transmission-level interconnection queue.
- **Permitting:** Large scale solar installation projects are often subject to lengthy permitting processes. Per the Ohio Revised Code, solar projects under 50 MW in size do not require approval by the Ohio Power Siting Board; therefore the proposed projects herein will avoid these permitting delays.
- **Remediation:** The 140-acre Painesville solar site is part of a larger brownfield property that is still in process of remediation by the current landowner. Remediation is anticipated to complete in 2025, allowing for solar site construction in 2026. Potential delays from review and approvals from Ohio EPA and the potential need for additional remediation would reduce GHG emissions reduction numbers calculated through to 2030, but the Coalition does not anticipate delays past 2030. Additionally, the Cuyahoga County Harvard Road landfill site may require more extensive remediation than the other landfill sites, potentially delaying the development of this site, which, again, could extend the GHG reduction timeline.

- **ITC Applicability:** In addition to the 30% ITC available for solar projects and the 10% qualified energy community bonus adder for solar projects developed on brownfields or on census tracts bordering coal plant closures, the Coalition plans to apply for the 10% low income tax credit adder for each eligible project. However, the Coalition has no guarantee that the IRS will grant allocations due to limited low-income tax credit availability. Additionally, the Coalition plans to make each project eligible for the 10% tax credit adder for domestic content requirements. Unavailable or cost prohibitive components may prevent this at the time of project construction. While the budget for this application does not assume the 10% domestic content tax credit, Coalition members will include domestic content requirements in the RFP process by using favorable weighting criteria. The domestic solar supply chain is expanding (including in Ohio) and will hopefully increase availability of domestic content once projects are ready to bid.
- **Community Engagement:** Community buy-in and engagement will be critical to the success of these projects. The Coalition has a plan to form an advisory committee to oversee community engagement and will hold quarterly engagement sessions for communities most impacted by the project.
- **Regional Workforce:** Regional workforce shortages may make it difficult to hire qualified workers to construct the projects. To ensure these projects utilize a local qualified workforce, the Coalition will require certain stipulations in their procurement processes: prevailing wage, preference for local workforce, and preference for MWBEs. Additionally, programming through partner organization Manufacturing Works will help to create a workforce pipeline. CPP and Painesville Electric also have plans to provide training for additional apprentices and journeymen.

Proposed GHG Reduction Measure #2 - Nature Based Solutions - Major Features

A. Painesville Nature Preserve Habitat Restoration - The 140-acre Painesville solar site is part of a larger, 1,100-acre lakefront property that was the site of the former Diamond Shamrock Corp. chemical manufacturing facility in Lake County, Ohio. The facility ceased operation in 1977 and the property has long stood blighted, contaminated, and unusable to the public, situated along a mile of Lake Erie shoreline. A portion of the property was at one point a candidate for listing on the National Priorities List (Superfund) by the US EPA. The current landowner - Occidental, a multinational petroleum and petrochemical manufacturing company - intends to make the fully remediated property available to project partner West Creek Conservancy for long-term public benefit, including implementation of a site Master Plan that includes establishment of a public access lakefront nature preserve.

Remediation of the entire 1,100-acre brownfield site is outside of the scope of this CPRG request, and will be complete before West Creek Conservancy gains site control. West Creek Conservancy proposes to transform the former Diamond Shamrock property into a regionally significant public lakefront preserve, with considerable environmental restoration activities proposed to restore ecological functionality to this lake- and river-front property, which contains approximately 2 miles of Grand River frontage and 1 mile of Lake Erie coastline. The proposed ecological restoration of the former Diamond Shamrock site will advance many of the regional climate action priorities outlined in the Cleveland-Elyria MSA PCAP, including:

- **Protect and restore healthy, stable streams and water systems, including Lake Erie and river shorelines:** West Creek Conservancy's planned restoration of the former industrial site, including replacement of approximately 400 acres of currently mowed lawn with native meadow and pollinator habitat, and reforestation of approximately 80 acres of Grand River riparian area, will slow stormwater runoff and enhance water quality in the Grand River and Lake Erie.
- **Expand tree canopy:** West Creek Conservancy's reforestation of the Grand River floodplain on the property will involve planting over 4,000 native trees, contributing to regional efforts to expand tree canopy in Northeast Ohio.
- **Manage public and private landscapes to provide communities with accessible recreation and support habitat, biodiversity, and ecosystem services:** The proposed transformation of this 1,100 acre brownfield, formerly held in private ownership and completely inaccessible (and hazardous) to

the public, will become a regional example of public-private cooperation towards the goals of enhanced public access to Lake Erie and nature-based outdoor recreation, improved stewardship of Lake Erie and its tributaries, and restoration of coastal habitat capable of supporting and enhancing the region's biodiversity and natural heritage.

B. Pollinator Habitat Establishment on Cuyahoga/Cleveland Solar Sites - West Creek

Conservancy will work with conservation partners to develop a unique native pollinator seed mix that is suitable for use at landfill solar sites. Species selected will be native to the region and will provide critical habitat for pollinators, while also having shallow enough root systems as to not disturb landfill/brownfield cap systems and low-growing enough to not interfere with the solar panels. This seed mix will be deployed across all landfill solar sites; in addition to the 400 acres of pollinator habitat planned for the Painesville lakefront preserve, another 38 acres will be deployed across the Cuyahoga County/Cleveland solar sites. This will significantly reduce the need for lawn maintenance, reducing associated emissions and establishing key pollinator habitat in highly urbanized areas.

Proposed GHG Reduction Measure #2 - Nature Based Solutions - Tasks & Milestones

A. Painesville Nature Preserve Habitat Restoration - West Creek Conservancy will take a phased approach to establishing native pollinator habitat on the Painesville nature preserve site. The northernmost, lakefront 140 acres will be established in 2025, with a subsequent 100 acres to be established in 2026, and the final 160 acres to be established around the installed solar panels in 2028. West Creek Conservancy will work with conservation partners including Lake Metroparks and the Lake County Soil and Water Conservation District to implement the habitat restoration, including treating the existing landscape for invasive species, prepping the soil, seeding, and maintenance through establishment. Once the habitat is established, mowing will occur every three years.

Tree planting along the floodplain and riparian corridor of the Grand River will be complete by 2030. West Creek Conservancy will engage a contractor through a competitive procurement process for planting and maintenance of the trees through a three year establishment period.

B. Pollinator Habitat Establishment on Cuyahoga/Cleveland Solar Sites - Following installation of the solar panels at each Cuyahoga County/Cleveland solar site, Cuyahoga County will engage a contractor for site prep and installation of native pollinator habitat utilizing the seed mix developed by West Creek Conservancy. Thirty-eight acres in total of pollinator habitat will be established across all sites by 2030.

Proposed GHG Reduction Measure #2 - Nature Based Solutions - Risks & Assumptions

- **Remediation Timeline:** Occidental, the current landowner of the Painesville brownfield property, has been in negotiation with West Creek Conservancy since 2022; an MOU detailing the existing agreement for future land use is attached (Site Documents). Before the site can be repurposed for public recreation, approval of the brownfield remediation activities undertaken by Occidental must be obtained from the Ohio EPA. Remediation is anticipated to be substantially complete by 2025 and fully complete by 2030. However, unforeseen delays in the remediation and/or approval by the Ohio EPA could result in a delay in West Creek Conservancy's site access, thereby delaying the habitat restoration planned for the site. West Creek Conservancy and Occidental have entered into a good-faith agreement to ensure continued progress towards full implementation of the lakefront preserve Master Plan, to the extent possible given brownfield remediation activities and any resulting regulatory constraints.
- **Planting Limitations:** On all capped brownfield/landfill sites, there is a risk that further investigation of the cap infrastructure and soil conditions will reveal inhospitable conditions for the native pollinator species selected. Additionally, the steep slopes and unknown site conditions of the Grand River valley may create challenges to the reforestation of the floodplain. Should species selection or planting strategies need to be adjusted to accommodate site conditions, project partner West Creek

Conservancy will utilize its extensive on-staff expertise and connections to other knowledgeable conservation experts to make such adjustments.

Roles of Coalition Members

The City of Painesville will lead implementation of both clean energy and nature based solutions at the Painesville site. The City of Painesville will partner with West Creek Conservancy and Lake Metroparks for implementation of proposed habitat restoration activities. Painesville Electric will be responsible for the installation of its 35 MW solar array and 10 MW battery system and for the decommissioning of its coal fired power plant. Painesville Electric will run its own competitive procurement process to hire a solar developer/installer and will utilize its own workforce to perform needed distribution infrastructure upgrades.

Cuyahoga County and the City of Cleveland will work cooperatively to develop 28 MW of solar across five Cuyahoga County sites. Cuyahoga County, in conjunction with Cleveland, will organize the competitive procurement process for hiring and selecting solar developers/installers. Cleveland Public Power will utilize its own workforce to perform needed distribution infrastructure upgrades. Each entity will also lead implementation of proposed nature based solutions at solar sites within their jurisdictions, including securing a contractor for installation of pollinator habitat and other proposed improvements.

As the lead applicant, Cuyahoga County will coordinate a Memorandum of Agreement (MOA) between all coalition members that will be submitted to the EPA on or before July 1, 2024. This MOA will clearly outline the roles and responsibilities of each Coalition member, will describe how the Coalition members will work together to benefit the project, and will include statements of accountability for all project deliverables. All coalition members have submitted Letters of Intent to sign this forthcoming MOA.

B. Demonstration of Funding Need

Proposed GHG Reduction Measure #1 - Clean Electricity - EPA funding is needed to deploy solar at the proposed scale within a timeframe that will help the region achieve its 2030, and ultimately 2050, climate goals. While partial funding sources – such as the new federal tax credits available through the Bipartisan Infrastructure Law – will significantly offset construction costs, CPRG would help to unlock these funds, making the proposed projects financially viable.

The low income populations targeted by this proposal have only one direct access point to low-cost, clean power: through their local municipal utilities, our coalition members. As stewards of the price of electricity for these low income communities, our coalition members cannot afford to make investments that would raise costs, even in the short term. CPRG funds will enable these utilities to serve their residents at a stable, affordable price without having to borrow and incur debt; any debt related costs would need to be incorporated into the price of electricity, thus increasing rates for already overburdened Justice40 communities (see: Section 4 pg.19). Revenue from the projects will serve as additional “seed funding,” catalyzing additional renewable energy and conservation projects. Further, grassroots and community-based organizations will be more likely to support the projects if their local governments (rather than an outside developer) oversee project development and direct project outcomes.

While the base cost of solar panels has declined over the past couple of decades, current approaches to financing renewable energy are still cost prohibitive for many communities. The City of Painesville and Cleveland Hopkins International Airport both solicited power purchase agreement (PPA) proposals for the Painesville and Kolthoff Road solar arrays. All proposals were rejected because PPA rates exceeded the price of grid sourced electricity. Cuyahoga County developed its existing 4 MW landfill array through a PPA that required high upfront costs and an expensive electricity price. While Cuyahoga County will have the ability to own its system after ten years, the remainder of the 77-acre landfill has not yet been developed because the County cannot afford another costly PPA at this time. Projects will be made affordable if Coalition members can purchase systems outright and take advantage of the newly established direct pay tax credits. CPRG funds will enable the outright purchase and immediate ownership of these projects, and this seed capital will make the utilization of other funding sources possible.

Below are forms of "partial funding" that will support project development:

- **Federal Tax Credits:** Every project in the application will take full advantage of the Section 48 Investment Tax Credit (ITC). At minimum, each project will receive the 30% base ITC as well as the 10% qualified energy community adder, as each project will be placed on a brownfield site or on a census tract bordering a coal plant closure. Further, several of the projects in Cuyahoga County are in low income census tracts, and those projects under 5 MW will request the 10% low-income tax credit adder. Lastly, the Coalition intends to meet domestic content requirements on these projects, and will endeavor to include the 10% domestic content bonus adder. Projects will at minimum leverage a 40% ITC in its project costs, with the possibility of 50% or 60% extending CPRG dollars further. Direct pay Inflation Reduction Act tax credits will be leveraged to reduce overall project costs and the overall amount of this grant request.
- **Renewable Energy Credits:** The Coalition has already begun conversations with potential renewable energy credit (REC) offtakers from the proposed energy property, specifically through the Greater Cleveland Partnership (as stated in the attached letter of support). Revenue from these REC sales will help cover project costs for the municipal utilities, who will pass those savings on to their ratepayers, many of whom live in Justice40 communities.
- **Tax Equity:** The Coalition requested and received confirmation from EPA, through its CPRG FAQ¹⁰, that a sale/leaseback tax equity transaction, meant to monetize the depreciation on energy projects to catalyze additional investment, is feasible for CPRG projects. The Coalition has begun conversations with potential partners on this, and will continue to explore this avenue for additional funds.

Coalition members are actively seeking other funding sources to implement the GHG reduction measure of Clean Electricity. Cleveland and Cuyahoga County were both part of the Industrial Heartland Solar Coalition that applied for the EPA's **Solar for All Program** last year to develop residential and community solar. Cuyahoga County is also in the process of applying for the Department of Energy's **Grid Resilience and Innovation Partnerships (GRIP) Program** to develop a community microgrid in the city of Euclid. While both grant opportunities would increase the amount of solar energy in the region, neither is applicable to the proposed utility scale projects that are the topic of this application.

Proposed GHG Reduction Measure #2 - Nature Based Solutions - The total vision for the lakefront preserve in Painesville is estimated to cost approximately \$130M. Only elements of the park plan that will yield quantifiable emissions reduction and carbon sequestration potential are included in this CPRG request. This includes conversion of the existing mowed lawn over the landfill cap into native meadow and pollinator habitat, as well as reforestation of the Grand River valley and floodplain. Revenue generated from the land lease to the City of Painesville for the 140-acre solar site, as well as potential sale of Renewable Energy Credits and carbon offsets, will support implementation of the Master Plan for the lakefront preserve by enabling West Creek Conservancy's perpetual management of the brownfield property, as well as public access infrastructure improvements and restoration activities not included in the scope of this CPRG request.

Other sources of philanthropic, state, and federal funds will be sought for elements of the lakefront preserve Master Plan including stabilization of the site's one mile of Lake Erie shoreline, over eight miles of trails (including the 2.25-mile lakeshore trail being constructed by Lake Metroparks, which will be the longest contiguous ADA-accessible lakeshore trail on the US coastline of Lake Erie), piers and public access infrastructure, and educational signage. Potential funding sources include federal Great Lakes Restoration Initiative, National Fish and Wildlife Foundation, NOAA Coastal Management, and Land and Water Conservation; state funding sources include the Clean Ohio Greenspace Conservation Program, Clean Ohio

¹⁰ See CPRG FAQ at Q42. EPA confirmed the viability of sale/leaseback transactions: "A42: The purchase or lease of real property is allowed under CPRG. However, any purchases (including leasing arrangements) made with CPRG funds would be subject to the costs principles at 2 CFR 200, Subpart E, meaning the purchase or lease would need to be reasonable and necessary to carry out the project being funded by CPRG."

Trails Fund, H2Ohio, NatureWorks, and Boating Infrastructure Grant programs. West Creek Conservancy is actively seeking funding through the National Fish and Wildlife Foundation's National Coastal Resilience Fund for assessment and preliminary design of the necessary shoreline stabilization activities. Project partner Lake Metroparks has already completed construction of Phase 1 of the lakeshore trail, extending 0.5 miles west from Painesville Township Park, and Phase 2 is underway to the east of the lakefront preserve property (\$3.8M investment). Lake Metroparks has secured \$1.48M to date for Phase 3 of the trail, which will traverse the lakefront preserve in Painesville, with additional fundraising ongoing.

While these additional funding sources will incrementally advance components of the overall \$130M Master Plan for the Painesville lakefront preserve, the revenue generated from the site access agreement to be developed with the City of Painesville will provide the upfront funds needed in order to facilitate West Creek Conservancy's perpetual management of the brownfield property, which would ordinarily be cost-prohibitive for a non-profit conservation organization and is not fundable by traditional conservation funding mechanisms such as those listed above. As such, CPRG funding for the Painesville solar project will have the secondary benefit of enabling West Creek Conservancy to pursue other funding sources for the establishment of this transformational lakefront preserve.

C. Transformative Impact

Ohio is the nation's fifth highest greenhouse gas emitter and lags significantly behind its Midwest counterparts in deploying GHG reduction strategies. While state-level action remains woefully slow, Ohio has more than 70 municipal utilities that can deploy clean energy more rapidly; these municipal utilities can reduce GHG emissions, improve air quality, create projects that center on equity and justice, and respond to the unique needs of their local communities. This project seeks to model how municipal utilities can be empowered to shift away from fossil fuel dependence through deployment of municipal clean energy projects, while also restoring blighted landscapes that characterize many postindustrial midwestern communities through a brownfield to brightfield conversion strategy.

The MECEC project will pioneer a scalable, replicable approach to GHG emission reduction that can be shared with other municipal utilities in Ohio. The Painesville solar project will demonstrate a solution to the complexities of decommissioning fossil fuel assets and replacing them with solar and battery systems, resulting in rapid GHG emissions and pollution reductions in low-income communities of color and propelling the community towards a renewable energy economy. The 63 MW of solar represented in the proposed MECEC projects, spanning three municipal utilities, will remove almost one million metric tons of carbon over their lifespan. The collective impact of 70 municipal utilities undertaking projects of comparable size across the state would be transformational and would set Ohio on the path towards a clean energy future.

The Painesville solar project is also a critical component of pioneering a new model for the reclamation and revitalization of a brownfield. The Diamond Shamrock industrial facility, once the largest brownfield site in Lake County, will soon become one of the largest solar sites in Ohio, and will house the longest contiguous ADA-accessible lakefront trail on the US side of the Lake Erie shoreline. This combined solar, brownfield reclamation, and lakefront nature preserve project is a first of its kind, regionally transformative initiative that is only possible due to the pioneering and innovative collaboration between a multinational corporation, a regional land trust, a county park district and a local municipality.

Finally, these projects are engaging labor in ways that are replicable in every Ohio community and will facilitate market transformation to accelerate deployment of clean energy in a fashion that is equitable and economically beneficial to the local workforce. IBEW Local 673 is working with the City of Painesville to ensure their local union members are part of this project. Despite the closure of the coal-fired power plant, Local 673 expects a net increase in the number of jobs created from this project and is working to ensure their workers can access those jobs. In Cuyahoga County, IBEW Local 38 is working with Cuyahoga Green Energy and Cleveland Public Power to ensure its members can access the new jobs generated by the landfill solar projects. IBEW is eager to use its experience with these projects to increase the number of clean energy jobs available to its workers across the state in the future.

While the state remains absent from any discussion about climate change, significant GHG reduction can and is happening at the local level. These projects are highly replicable and the partners in this application are committed to assisting other municipal utilities with similar projects.

Section 2: Impact of GHG Reduction Measures

Proposed greenhouse gas reductions measures for both PCAP greenhouse gas reduction measures will reduce total greenhouse gas emissions by **206,445.695 MT CO₂e** by the year 2030 and by **995,319.667 MT CO₂e** by the year 2050. Greenhouse gas emission reductions due to clean electricity were estimated using the US EPA's Avoided Emissions and Generation Tool (AVERT). Future emissions reduction projections were then adjusted to account for expected grid-decarbonization over time. Greenhouse gas emission reductions due to nature based solutions were calculated using the USDA Forest Service's iTree Planting software and the US EPA's Greenhouse Gas Equivalencies Calculator.

A. Magnitude of GHG Reductions from 2025 through 2030

Proposed GHG Reduction Measure #1 - Clean Electricity - Emissions reductions, pollution reductions, and health benefits were estimated for the Painesville Coal Retirement/Solar project and the Cuyahoga County Solar project individually. Below provides a general overview of the process that was used for estimating measure benefits. Additional information on the methodology can be found in Techappx_CuyahogaCounty and GHGcalcs_CuyahogaCounty. Emissions reductions are discussed below; secondary pollutant and health benefits are discussed in Section 3: Environmental Results.

For the Painesville Coal Retirement/Solar project, the following approach was taken:

1. Estimate the impacts of retiring the Painesville Coal/Natural Gas power plant.
 - A. Elimination of coal and natural gas consumption.
 - B. Elimination of associated fugitive emissions from natural gas.
2. Estimate impact of 35 MW utility-scale solar added in the Midwest subregion using US EPA's AVERT.
3. Estimate annual emissions and pollution benefits through 2050, reducing benefits in line with expected grid-decarbonization, as modeled in US Energy Information Administration's (US EIA) Annual Energy Outlook 2023 reference case for the East-North-Central region.
4. Estimate health impacts using US EPA's COBRA.
5. Estimate cumulative emission, pollution, and health impacts for 2025-2030 and 2025-2050.

Tools, Assumptions, & Uncertainties:

- US EPA tools were used to minimize uncertainties, however, both tools are limited in ability to capture expected future changes of a dynamic grid. As energy modeling is both cost-and time-prohibitive, reducing the EPA tool-modeled results by US EIA modeled grid decarbonization should provide a reasonable estimate of benefits, sufficiently conservative to ensure achievement.
- The project was estimated to be completed and online in 2027. Considering current supply chain issues and those that may be created as the demand for solar increases, as well as the remediation timeline for the brownfield land, there is a potential for project delay. A year delay could reduce project benefits by 6% through 2050.
- Estimates for the retirement of the Painesville Coal/Natural Gas power plant include some uncertainty, primarily concerning the expected future dispatch of the facility's generating capacity. Environmental and health impacts again were conservatively estimated in order to mitigate this uncertainty using the grid-decarbonization factor as a modifier. As benefits of the closure are generally around 20% of the project's total, the low uncertainty here will likely not affect the project's total impact to a significant degree.

Resulting 2030 GHG reduction estimates for the Painesville solar project and closure of the Painesville coal-fired power plant: 116,202.845 MT CO₂e.

For the Cuyahoga County project, the following approach was taken:

1. Estimate the impact of 25.3 MW utility-scale solar and 2.8 MW behind-the-meter solar being added in the Midwest subregion using US EPA's AVERT.
2. Estimate annual emissions and pollution benefits through 2050, reducing benefits in line with expected grid-decarbonization, as modeled in US EIA's AEO 2023 reference case for the East-North-Central region.
3. Estimate health impacts using US EPA's COBRA.
4. Estimate cumulative emission, pollution, and health impacts for 2025-2030 and 2025-2050.

Tools, Assumptions, & Uncertainties:

- Uncertainty within the methodology for estimating benefits here is the same as for the solar component of the Painesville project. Here, however, as the project includes multiple smaller installations, there is an increased likelihood of supply chain disruption. To compensate for this, the analysis assumed all projects would be complete and online in 2027. A year delay in this instance would likely reduce total project benefits by 3% through 2050.

Resulting 2030 GHG reduction estimates for the Cuyahoga County solar projects: 90,073.650 MT CO₂e.

Cumulative 2030 GHG reduction estimates for the Clean Electricity GHG measure: 206,276.495 MT CO₂e.

Proposed GHG Reduction Measure #2 - Nature Based Solutions - West Creek Conservancy will establish native meadow and pollinator habitat on approximately 400 acres of the Painesville park property, reducing the mowing schedule on this acreage from the current estimated 21 times per year to just once every three years. Based on the anticipated phased schedule of site control to West Creek Conservancy, it is expected that 140 acres of meadow habitat will be established in 2025, 100 acres in 2026, and 160 acres in 2028. Additionally, 38 acres of pollinator habitat will be established across the five Cuyahoga County solar sites by 2030.

Tools, Assumptions, & Uncertainties:

- It is assumed that all acres are currently mowed every 3 weeks (21 times per year).
- It was assumed that mowing one acre requires an estimated 0.75 gallons of gasoline. Based on research of landscaping industry standards, this is a conservative estimate.
- Gallons of gasoline used for mowing were converted to metric tons of CO₂ equivalent using the EPA's Greenhouse Gas Equivalencies Calculator.
- See Technical Appendix for full calculations and assumptions.

Resulting 2030 GHG reduction estimates for the Nature Based Solutions GHG measure: 169.2 MT CO₂e.

Sum total of 2030 GHG reductions resulting from all measures: **206,445.695 MT CO₂e.**

B. Magnitude of GHG Reductions from 2025 through 2050

Proposed GHG Reduction Measure #1 - Clean Electricity - Emissions reduction, pollution reduction, and health benefits by 2050 were estimated for the Painesville Coal Retirement/Solar project and the Cuyahoga County Solar project using the US EPA AVERT and US EIA's AEO tools, with methodologies and associated uncertainties described above. **Resulting 2050 emissions reduction estimates for the Clean Electricity GHG measure are 993,510.167 MT CO₂e.**

Proposed GHG Reduction Measure #2 - Nature Based Solutions - 2050 emissions reductions will result from the establishment of pollinator habitat (described above) and the planting of 4,000 1" caliper native trees on 80 acres of the Painesville Park Grand River valley and floodplain by the year 2030.

Tools, Assumptions, & Uncertainties:

- Total 2050 emissions reductions due to the establishment of pollinator habitat were calculated using the US EPA's Greenhouse Gas Equivalencies Calculator as described above.
- Total 2050 emissions reductions (as well as other co-benefits including stormwater runoff avoided and air pollution interception) due to reforestation efforts were calculated using the USDA Forest Service's iTree Planting software (Version 2.7.0).
- A conservative annual mortality rate of 10% for 20 years was assumed for the 4,000 trees planted, given the unknown soil conditions and slope of the river valley.
- It was assumed that trees will be in good condition when planted and will receive full sun.
- See Technical Appendix for proposed tree species list, as well as additional assumptions used and limitations of the iTree Planting model.

The total emissions reduction potential from the pollinator habitat and resulting mowing reduction across 438 acres amounts to a predicted **1,269.2 MT CO₂e by 2050**. The total carbon sequestration potential of the trees planted is estimated to be approximately **540.3 MT CO₂e by 2050**.

Resulting 2050 emissions reduction estimates for Nature Based Solutions measure are 1,809.5 MT CO₂e.

Total 2050 GHG reductions resulting from all measures in the application: 995,319.667 MT CO₂e.

C. Cost Effectiveness of GHG Reductions

Years	CPRG funding requested	Total project budget w/o tax incentives	Budget Ratio	Est. total emissions	Quantified GHG emissions	Cost effectiveness: \$ CPRG request/ quantified MTCO ₂ e
2025-2030	\$129,396,997	\$196,308,747	0.66	206,445.70	136,078.77	\$950.90
2025-2050	\$129,396,997	\$196,308,747	0.66	995,319.67	656,065.40	\$197.23

CPRG funding requested is inclusive of funding for direct greenhouse gas reducing measures (solar installations, tree plantings, and pollinator habitat establishment) in addition to important elements such as site control, battery storage installation, and apprenticeship programming needed to enable project success. The total project budget accounts for removal (w/o - without) of the tax incentives such as the ITC and low-income tax adder particularly at the solar sites, indicating that the CPRG funding request is 66% of the total project cost. The estimated total emissions from these projects for 2030 and 2050 are scaled appropriately in the Quantified GHG Emissions column to calculate the cost effectiveness ratio in **bold**. Budget details are Budget_CuyahogaCounty and Budgetcalcs_CuyahogaCounty. Non greenhouse gas reducing measures were only included as needed to enable project success. The 10 MW battery installation is needed for the City of Painesville to economically decommission the coal fired power plant. Additionally, funding requested for apprenticeship programming with wraparound services will help to expand the local renewable energy job pipeline and create opportunities for underrepresented populations.

Section 3: Environmental Results - Outputs, Outcomes, and Performance Measures

A. Expected Outputs and Outcomes

Proposed GHG Reduction Measure #1 - Clean Electricity

Expected Outputs:

- 63 total MW of solar generation (including needed distribution upgrades)
- 10 MW of battery storage on one site
- 136 construction jobs*
- 66 operations & maintenance (O&M) jobs*
- 17 jobs retained and reskilled from coal-fired power plant to solar and battery storage facility

- F. 100 pre-apprenticeship positions created
- G. Closure of one 36 MW capacity (at its height) peaking coal-fired power plant, built in 1888
- H. 6 total staff hired / new positions created
- I. Number of total trainings offered for workforce development and re-skilling

*The total number of predicted construction and maintenance jobs can be calculated based on guidance from the National Renewable Energy Lab (NREL).¹¹ According to data from NREL and U.S. DOE, every megawatt of solar generation installed yields 1.4 construction jobs and 0.8 O&M jobs.¹² Every megawatt of battery storage installed yields 4.8 construction jobs and 1.7 O&M jobs.¹³ Therefore, the installation of 63 MW of solar generation would create an estimated 88 construction jobs and 49 O&M jobs. The installation of 10 MW of battery storage would create an estimated 48 construction jobs and 17 O&M jobs. **Altogether, a predicted 136 construction jobs and 66 O&M jobs will be created.**

Expected outcomes are listed below, organized by near-term (by 2030), long-term (by 2050), or both near-term and long-term timeframes. The below outcomes include avoided GHG emissions as described in Section 2, avoided pollution in total and average annual MT, and avoided health impacts, respectively. These outcome summaries include both the sum of Cuyahoga County (5 sites) & Painesville (1 site).

Expected short-term outcomes (by 2030):

- Reduction in cumulative MT CO₂e emissions: 206,277
- Reduction in average annual MT of CAP and HAP emissions:
 - 17.6 (SO₂), 15.2 (NO_x), 2.3 (PM_{2.5}), 0.5 (VOC), 0.7 (NH₃)
- Reduction in total MT of CAP and HAP emissions:
 - 105.7 (SO₂), 91.3 (NO_x), 13.9 (PM_{2.5}), 3.2 (VOC), 4.2 (NH₃)
- Avoided total health impacts by 2030:
 - \$ Total Health Benefits: \$11,538,295 (low) - \$26,002,573 (high)
 - Minor restricted activity days: 632
 - Work loss days: 107
- Pre-apprentices entering the renewable energy workforce or advanced apprenticeship training with job retention for at least one year

Expected long-term outcomes (by 2050):

- Reduction in cumulative MT CO₂e emissions: 993,510
- Reduction in average annual MT of CAP and HAP emissions:
 - 19.2 (SO₂), 16.6 (NO_x), 2.6 (PM_{2.5}), 0.6 (VOC), 0.7
- Reduction in total MT of CAP and HAP emissions:
 - 499.8 (SO₂), 431.3 (NO_x), 65.8 (PM_{2.5}), 14.6 (VOC), 19.8 (NH₃)
- Avoided total health impacts by 2050:
 - \$ Total Health Benefits: \$45,334,595 (low) - \$102,165,676 (high)
 - Minor restricted activity days: 2,475
 - Work loss days: 419

Both (short-term and long-term)

- Reduced demand for fossil-fuel based electricity in the regional grid
- Reduced energy bills for residents due to lower transmission and purchased generation costs

¹¹ Truitt, S. et al. (2022). State-level employment projections for four clean energy technologies in 2025 and 2030. The National Renewable Energy Laboratory (NREL). <https://www.nrel.gov/docs/fy22osti/81486.pdf>

¹² NREL. (2022). Regional Energy Deployment System(ReEDS). <https://www.nrel.gov/analysis/reeds/>; U.S. Department of Energy. (2023). U.S. energy & employment jobs report 2023. Office of Policy.

<https://www.energy.gov/policy/us-energy-employment-jobs-report-useer>

¹³ NREL, supra note 12; U.S. Department of Energy, supra note 12

- Enhanced level of community engagement

Proposed GHG Reduction Measure #2 - Nature Based Solutions

Expected Outputs:

- A. 4,000 trees planted
- B. 80 acres of Grand River riparian area reforested
- C. 438 acres of currently mowed lawn converted to native meadow habitat
- D. 438 acres native meadow/pollinator habitat created
- E. 1 new full time job created

Reducing mowing operations on the Painesville lakefront preserve property through conversion of mowed lawn to native meadow habitat will not only reduce CO2 emissions, but will improve air quality by reducing emissions including volatile organic compounds, nitrogen oxides and particulate matter associated with gas powered mowers and brushhogs (note, only CO2 emissions reductions were calculated for mowing reduction). Based on the iTree Planting model, the planned reforestation of the Grand River valley on the lakefront preserve property will further reduce air pollutants.

Expected short-term outcomes (by 2030):

- 169.2 MT CO2e reduced

Expected long-term outcomes (by 2050):

- 1,809.5 MT CO2e reduced
- 2,632 pounds of ozone removed by trees
- 432 pounds of nitrogen dioxide removed by trees
- 120 pounds of particulate matter removed by trees
- 956,041 total avoided gallons of stormwater runoff into the Grand River

Both (short and long term):

- Estimated reduction of 787 pounds of nitrogen, 141 pounds of phosphorus, and 34 tons of sediment load entering Lake Erie and the Grand River annually.
- Enhanced level of community engagement

B. Performance Measures and Plan

Proposed GHG Reduction Measure #1 - Clean Electricity

All performance measures will be tracked by Cuyahoga County with data collected by partnering organizations. Performance will be evaluated based on the attainment of identified outputs and outcomes. Cuyahoga County will keep track of this data and provide summary reports on a semi-annual basis to the EPA and to project stakeholders.

Outputs and outcomes are outlined below with their associated performance measure and tracking plan:

1. 63 MW of solar and associated GHG emissions reductions
 - a. **Performance Measure:** Annual MWh
 - b. **Tracking Plan:** Solar productivity data collected using an automated tracking system. Solar productivity will be translated into emissions using EPA's latest values for the Reliability First Corporation West Subregion available through EPA's Emissions & Generation Resource Integrated Database (eGRID).
2. 10 MW of Battery Storage
 - a. **Performance Measure:** Hours of battery performance compared to hours of peak demand
 - b. **Tracking Plan:** Tracked by Painesville Electric through power metering of battery installation.
3. Air quality improvements
 - a. **Performance Measure:** CAPs and HAPs reduced within vicinity of Painesville power plant, as a

- result of the closure of the plant
- b. **Tracking Plan:** Ohio EPA air quality sensor three blocks from Painesville power plant. Painesville Electric requests data from the Ohio EPA.
- c. **Performance Measure:** CAPs and HAPs reduced as a result of all solar installations
- d. **Tracking Plan:** Cuyahoga County will request data from NOACA and Ohio EPA through their deployed air quality sensors network. Additionally, Cleveland Division of Air Quality have their own sensors and are building a community air quality project called CLEANInCLE.
- e. **Tracking Plan:** General inference of magnitude of co-pollutant reductions based on solar productivity using AVERT
- 4. Reduced demand for fossil-fuel based electricity, reduced energy bills for residents
 - a. **Performance Measure:** Annual reporting received of power supply - both purchased generation and cost - provided by AMP to Painesville Electric and Cleveland Public Power
 - b. **Tracking Plan:** Every three years, CPP and Painesville Electric conduct a cost of service study. This study enables savings to be translated to a reduced rate depending on customer class.
- 5. Creation of 100 pre-apprenticeship positions
 - a. **Performance Measure:** Number of pre-apprentices who enter the renewable energy workforce and are retained for at least one year
 - b. **Tracking Plan:** Tracked and reported by Manufacturing Works
- 6. Increase in the number of renewable energy related construction jobs
 - a. **Performance Measure:** Number of construction jobs created over the grant period
 - b. **Tracking Plan:** Tracked and reported by project developer
- 7. Increase in the number of O&M jobs
 - a. **Performance Measure:** Number of O&M jobs created by the end of the grant period
 - b. **Tracking Plan:** Tracked and reported by Painesville Electric, CPP, and CGE

Proposed GHG Reduction Measure #2 - Nature Based Solutions

Output(s) and/or Outcome(s)	Performance Measure	Tracking Plan
Reforestation of 80 riparian acres with 4000 trees	Number of trees planted; survival rate	West Creek Conservancy will work with Lake Metroparks and associated tree planting & maintenance contractor(s) to track deliverables and survival of trees over a 3-year establishment period.
438 acres of native pollinator meadow habitat established	Acres of pollinator habitat planted	West Creek Conservancy and Cuyahoga County will work with contracted conservation partners to monitor progress towards installation of pollinator habitat at solar sites.

C. Authorities, Implementation Timeline, and Milestones

Proposed GHG Reduction Measure #1 - Clean Electricity

Roles, Responsibilities & Authorities - The landfill solar projects in Cuyahoga County will be treated as a portfolio of projects and will be managed jointly by Cuyahoga Green Energy and Cleveland Public Power. Executing these projects as a portfolio will enable the team to capture economic and logistical synergies, as well as the flexibility to execute sites in an optimal order based on a prioritization that will be developed during site engineering. The Painesville solar and storage project will be run as its own project and will be managed by Painesville Electric.

As the City of Painesville's Municipal Utility, Painesville Electric already has the authority to develop and incorporate the proposed solar and storage system into its distribution network. Painesville Electric will run its own competitive procurement process to hire a solar developer/installer and will utilize its own workforce to perform needed distribution infrastructure upgrades. Painesville Electric will own the assets and equipment of the solar site and will be responsible for operations and maintenance.

The 1,100-acre property in Painesville on which the City of Painesville's solar site will be located is currently owned by Occidental, a multinational petroleum and petrochemical manufacturing company. West Creek Conservancy has an agreement in place with Occidental to begin obtaining site access of the property piece by piece as each portion of the property is fully remediated and approved by the Ohio EPA for public use. Site access is anticipated to begin in 2024, with full access to the entire property anticipated in 2030. Upon obtaining site control, West Creek Conservancy will have the authority to lease the 140 acres proposed for development of the City of Painesville's solar site. It is anticipated that this will occur in 2025. An MOU between West Creek Conservancy and Occidental, as well as a West Creek Conservancy's Letter of Commitment to participating in the MECEC project in this capacity are included as attachments.

Cuyahoga County and the City of Cleveland, working through their respective utilities, have the authority to develop 28 MW of solar across five Cuyahoga County sites and to interconnect these systems to Cleveland Public Power's distribution network. Cuyahoga County, in conjunction with Cleveland, will organize the competitive procurement process for hiring and selecting solar developers/installers. Cleveland Public Power will utilize its own workforce to perform needed distribution infrastructure upgrades.

Ownership of the energy systems for the Cuyahoga County sites will be shared between CGE and CPP based on an agreement which will be delineated through the MOA to be submitted before July 1, 2024. The W.11th street energy system will be owned entirely by Cleveland, and the Garfield Hts. system will be owned entirely by Cuyahoga County. The other three sites will have joint ownership with the share of ownership and revenue.

Site control for all Cuyahoga County projects has been established. Cuyahoga County owns the Central Services Campus property which will house the Garfield Rd. project. The City of Cleveland owns the Kolthoff Rd. landfill and has negotiated ownership of the West 11th St. landfill through an agreement with the Cuyahoga County Land Bank. Local developer CEP Renewables has obtained the development rights to the Brooklyn landfill property through the City of Brooklyn and to the Harvard Rd. landfill property through the court-appointed receiver.

The CEP owned sites have not yet moved forward due to the regulatory environment in Ohio and will remain uneconomical and infeasible as long as they are attempting to interconnect with the investor-owned electric distribution company. In order to bring these projects to fruition, the Coalition intends to engage CEP as the sole source developer of these two projects, and requests EPA approval on a sole source contract. The justification for our sole source request is two-fold. First, CEP Renewables has a uniquely available service, specifically solar development, on the aforementioned proposed sites. Second, these proposed sites are ideal for solar development. Unlike many other local brownfield properties, the Harvard and Brooklyn sites are sizable enough to host utility scale solar projects and are in close proximity to the CPP distribution network. As noted in their letter of commitment, CEP has pledged to work with the City of Cleveland and Cuyahoga County to abide by all local and federal procurement requirements when selecting a qualified solar installer.

Implementation Timeline & Milestones

<u>Clean Energy: Milestone Timeline</u>	<u>Completion Period</u>
Preliminary engineering and site plan development	Q1 2025
Quality Assurance Project Plan developed	Q1 2025
Semiannual report preparation and submission	Q2 2025 (and ongoing)
Interconnection study	Q3 2025
Permitting and environmental studies	Q3 2025
RFP documents prepared	Q4 2025
Procure and contract EPC	Q1 2026
Procure long lead time materials	Q2 2026
Construction	Q2 2026
Utility connection	Q4 2026
Energize system and commissioning	Q1 2027
Decommissioning of coal fired power plant	Q1 2027

Final Report preparation and submission Q3 2029
Woven throughout this timeline will be ongoing community engagement and pre-apprenticeship training activities.

Proposed GHG Reduction Measure #2 - Nature Based Solutions

Roles, Responsibilities & Authorities - The city of Painesville will work with project partners West Creek Conservancy and Lake Metroparks to implement the nature-based solutions including reforestation and native pollinator habitat establishment on the Painesville site. Cuyahoga County and the City of Cleveland will also rely on the support of West Creek Conservancy and other conservation and community partners for establishment of pollinator habitat on the Cuyahoga County solar sites.

Ecological restoration of the Painesville site will be ongoing as site control is granted to West Creek Conservancy, beginning with establishment of native meadow habitat on the lakefront parcels in 2025 and concluding with completion of the reforestation of the Grand River floodplain in 2030.

Implementation Timeline & Milestones

Nature Based Solutions: Milestone Timeline	Completion Period
Quality Assurance Project Plan developed	Q1 2025
Native pollinator seed mix developed	Q1 2025
RFP documents prepared (pollinator habitat installation)	Q2 2025
Semiannual report preparation & submission	Q2 2025 (and ongoing)
Procure contractor for pollinator habitat installation	Q3 2025
Site prep & installation of pollinator habitat - Painesville 140 acres	Q3 2025
RFP documents prepared (reforestation)	Q2 2026
Site prep & installation of pollinator habitat - Painesville 100 acres	Q3 2026
Site prep & installation of pollinator habitat - Painesville 160 acres	Q3 2028
Procure contractor for Grand River valley reforestation & maintenance	Q3 2028
Tree planting	Q3 2028
Site prep & installation of pollinator habitat - Cuyahoga County site	Q3 2029
Final Report preparation and submission	Q3 2029

Woven throughout this timeline will be ongoing community engagement activities.

Section 4: Low-Income and Disadvantaged Communities

A. Community Benefits

Background - Cuyahoga County is the most racially and ethnically diverse county in Ohio. But the county is beset by income inequality and environmental problems. Twenty-three percent of children live in poverty, and 16.2% of residents live below the poverty line.¹⁴ The county is ranked among the least healthy counties in Ohio, with higher-than-normal particulate matter.¹⁵

The City of Cleveland, Cuyahoga County’s largest municipality, is the second poorest big city in America, with a 33% poverty rate.¹⁶ Of Cleveland’s almost 363,000 residents, 87% live within a CEJST census tract. Cleveland residents disproportionately suffer from poor air quality and a higher energy burden. Over 100,000 Cleveland households experience significant energy burden - paying more than 6% of their income on energy bills - and over 40,000 households experience severe energy burden - paying more than 10% of their income on energy bills.¹⁷

¹⁴ U.S. Census Bureau (2022). *American Community Survey 1-year estimates*. Retrieved from *Census Reporter Profile page for Cuyahoga County, OH*. <https://censusreporter.org/profiles/05000US39035-cuyahoga-county-oh/>; U.S. Census Bureau (2023). *QuickFacts Cuyahoga County*. <https://www.census.gov/quickfacts/cuyahogacountyohio>

¹⁵ University of Wisconsin Population Health Institute. (2024) *2023 County Health Rankings - Cuyahoga County, OH*. <https://www.countyhealthrankings.org/explore-health-rankings/ohio/cuyahoga?year=2023>

¹⁶ World Population Review. (2024). *Poorest cities in America 2024*. <https://worldpopulationreview.com/us-city-rankings/poorest-cities-in-america>

¹⁷ Engelke, P., Webster, J., & Sparkman, M. (2024, March 5). *Cleveland, Ohio: Promoting a local and just energy transition*. Atlantic Council.

In neighboring Lake County, where the 1,100-acre remediated brownfield, lakefront preserve, and Painesville solar site will be located, two census tracts are designated as Justice40 communities. These two Justice40 census tracts are located in the City of Painesville, adjacent to the site of the proposed project, and are home to a total of 8,717 residents.

- Census Tract 39085204500: This tract is 60% low income, and a majority of residents (58%) are people of color. This census tract is in the 90th (or above) state or national percentile for five (5) EJ Indexes, including Ozone, Diesel Particulate Matter, RMP Facility Proximity, Hazardous Waste Proximity, and Underground Storage Tanks. This census tract is also specifically referenced in the Cleveland-Elyria MSA PCAP as one that would benefit from Nature Based Solutions due to its less than 10% tree canopy.
- Census Tract 39085204200: This tract is 52% low income, and a majority of residents (60%) are people of color. This census tract is in the 90th (or above) state and national percentile for three (3) EJ Indexes, including Ozone, RMP Facility Proximity, and Hazardous Waste Proximity.

An additional seven census block groups in the adjacent communities that will be served by the brownfield reclamation and lakefront preserve project in Painesville, including Painesville Township, the Village of Fairport Harbor, and the City of Painesville, are designated as EPA IRA Disadvantaged Communities. These census tracts are listed Areas_CuyahogaCounty.

Increased Parity in Clean Energy Technology Access and Adoption & Decreased Energy Burden - Disadvantaged and under-resourced communities have been left behind in the nation's transition to clean energy. While distributed solar photovoltaic (PV) systems have been widely deployed across the United States in recent years, access to solar power has remained unattainable for a large segment of the U.S. population, particularly low- and moderate-income (LMI) communities.¹⁸

The proposed project will increase access to renewable energy for underrepresented communities in Northeast Ohio. Four out of six of the proposed solar sites are geographically located in Justice40 Communities (See Areas_CuyahogaCounty). Additionally, EPA funding will enable these projects to be developed at an affordable price for the residents of Painesville and Cleveland. The majority of power produced through the proposed solar installations will flow to the residents of Cleveland and Painesville.

Cleveland Public Power, Cuyahoga Green Energy, and Painesville Electric are all committed to reducing energy burden in their communities and will provide power to residents at a rate that is less than the current market price of residential electricity. Without EPA funding, the projects would not be economically viable for residential offtakers in these largely Justice40 communities. A list of CEJST census tracts served by CPP and Painesville Electric can be found in Areas_CuyahogaCounty attachment.

Reduced Environmental Exposure - The proposed project will reduce environmental exposure to toxic air pollutants for City of Painesville residents and other downstream Ohio communities. The Painesville Electric coal fired power plant is surrounded by Justice40 neighborhoods, and 43% of all Painesville residents live in Justice40 communities. These residents are exposed to particulate matter, mercury, and ozone producing sulfur dioxide and nitrogen oxides every time the plant is fired up to reduce peak electricity loads. Residents in these census tracts are in the top state and national percentiles for exposure to ozone and proximity to RMP facilities. Closure of the plant will reduce environmental exposure and improve air quality, resulting in improved health outcomes.

The project will also lead to downstream benefits for other Ohio communities. The addition of 63 MW of solar in both Painesville and Cuyahoga County will decrease regional reliance on fossil fuels. Of Ohio's

<https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/cleveland-ohio-promoting-a-local-and-just-energy-transition/>; Kowalski, K. (2023, Jan. 10). *Cleveland pilot project provides rooftop solar for low-income residents*. Ohio Capital Journal. <https://ohiocapitaljournal.com/2023/01/10/cleveland-pilot-project-provides-rooftop-solar-for-low-income-residents/>

¹⁸ National Renewable Energy Laboratory (NREL). (n.d.) *Low- and Moderate-Income Solar Policy Basics*.

<https://www.nrel.gov/state-local-tribal/lmi-solar.html>.

10 largest power plants, 4 are predominantly coal fired and 4 are gas fired. Of these, 7 are within three miles of a CEJST community and 7 are within three miles of a community ranking 90% or greater on one or more relevant EJ Screen Tool Supplemental Indicators. Residents of these communities are disproportionately exposed to the environmental toxins generated by these fossil fuel plants and disproportionately suffer from related health impacts - such as asthma and cardiovascular effects.

The significant amount of renewable energy enabled by this project will help to displace fossil fuel sources, resulting in cleaner air for downstream communities, and the alleviation of negative health impacts. Fugitive natural gas emissions will also be avoided.

Job Creation & Training - Local workforce development organization, Manufacturing Works (MW), will work with coalition members to develop commercial and industrial construction and renewable energy-related pre-apprenticeship programs and conduct grassroots outreach to increase awareness about available jobs and training for critical occupations affiliated with this project. These industry sectors' foundational and technical skills overlap considerably with advanced manufacturing. The organization serves more than 1,200 manufacturers in Ohio. More than 80% of MW Workforce program participants are underrepresented and under-resourced learners, including African American, LatinX, Women, and Veterans. MW will offer multiple on-ramps for industry certifications, academic credits, and micro-credentials for high school and college students, underemployed, and existing employees in construction, renewable energy, and manufacturing. Utilizing an equity-based design and best practices, the program will increase the diverse participation/retention in industry-aligned career pathways that provide upward mobility.

MW will collaborate with Ohio's broad industry sector partnerships, community-based organizations, education providers and labor organizations, to raise awareness for apprenticeship pathway opportunities and implement high-quality pre-apprenticeship programs. MW will review standards for Pre-Apprenticeship and each apprenticeship occupation, map related instruction to each standard, and submit standards for approval to the Ohio credentialing agency (Apprentice Ohio) where necessary. The MW leadership team will utilize the U.S. Department of Labor (DOL) Competency Model Clearinghouse system as a guide. DOL worked with subject matter experts from the Department of Energy (DOE), DOE National Laboratories, and industry associations to develop a competency model for renewable energy—which MW will refer to for this project. DOL also developed a commercial and industrial construction industry competency model in collaboration with the Associated General Contractors of America. Several apprenticeship occupations, such as electrician, are linked to this industry. This "stackable credentials" system includes assessments to validate knowledge and skills learned in the classroom and on the job, resulting in industry-recognized credentials that are transportable from one company to another. It also allows for flexibility and pathways for career advancement. MW will utilize various interventions to advance participants' education and skills – including a combination of Adult Basic Literacy Education (ABLE) services, Career Readiness 101, and individually tailored support provided by staff. Target outreach efforts towards underrepresented populations through partnerships with community-based champion organizations and tailored recruitment strategies will include pre-apprenticeship training, mentorship programs, and support services to address barriers including but not limited to academic support, counseling, transportation assistance, access to childcare services, and financial coaching to mitigate barriers to participation and completion.

Remediation of Blighted Land: Painesville Lakefront Preserve - The City of Painesville's lease of the 140-acre solar site will support West Creek Conservancy's perpetual management of the 1,100 acre site, enabling the land conservation organization to establish a public lakefront preserve. While full realization of the Master Plan as developed by West Creek Conservancy and Lake Metroparks will take several years for funding and implementation, the result will be the transformation of a formerly blighted industrial site into one of the largest public lakefront parks in the region, advancing regional goals including improving water quality in Lake Erie, which provides drinking water for over 11 million people including all residents of Lake

and Cuyahoga counties; stabilizing the shoreline; and improving coastal habitat for pollinators, migratory birds of state and federally-listed species, and other wildlife.

Equally as significant as the ecological and human health benefits of the restoration of this former brownfield are the social and environmental justice benefits that will result from the establishment of a 1,000+ acre public lakefront preserve. Only about 13% of Ohio's 312 miles of Lake Erie coastline is currently publicly accessible. Lake Metroparks has begun construction of a 2.25-mile ADA-accessible bike and pedestrian lakeshore trail connecting two existing municipal lakefront parks on either side of the property – Fairport Harbor Lakefront Park to the west, and Painesville Township Park to the east, which in total host over 500,000 visitors annually. This trail will feature a number of overlooks and access points for the public to connect to our region's greatest natural resource - Lake Erie - and development of this lakeshore trail has already prompted economic development and real estate activity in adjacent communities. West Creek Conservancy has facilitated development of a conceptual Master Plan for the lakefront preserve that includes an additional 8 miles of paved and natural surface trails connecting residential neighborhoods in the City of Painesville, Fairport Harbor, and Painesville Township directly to the lakefront. Not only will this trail system establish unprecedented public access to the Lake Erie coastline, but it will also provide educational opportunities for the public to learn about the ecological significance of coastal Lake Erie habitat for our region's birds, pollinators and other wildlife; water quality protection efforts in the Lake Erie watershed; the benefits of solar energy for the community; and the history and transformation of this historic site. While the trails, educational signage, and park access infrastructure are not included in the scope of this CPRG request, lease of the solar site will support realization of this long term vision for the property by enabling West Creek Conservancy's perpetual conservation management and transformation of the brownfield site.

Anticipated Negative Effects - Potential disruption to surrounding communities may occur during the construction phase of the projects. Such disruptions may include noise, increased traffic, and congestion. Two of the sites, the West 11th site and the Harvard Road site, are in close proximity to neighboring households. The Coalition and local community development corporations will work with these communities through the public outreach process to engage residents during the early planning phases of the projects. Through community engagement sessions, the Coalition will share project plans and gather community feedback. Community concerns will be considered and will help determine how construction is implemented.

Before construction begins, the Coalition will also work with selected contractors and local municipalities to identify the safest routes for construction traffic to access the site, to ensure that chosen traffic routes minimize congestion, and to maintain safe access for residents to their own properties. Additional precautions will include:

- Limiting construction activities to predictable weekday hours
- Positioning noisy equipment away from homes
- Installing noise controls on loud equipment

Plan for Reporting Benefits

All performance measures will be tracked by Cuyahoga County with data collected by partnering organizations as follows:

- Pre-apprenticeships: Number of positions created, number of pre-apprentices entering the workforce, and retention rates: Tracked by Manufacturing works.
- Co-pollutant (CAPs and HAPs) Reductions: The municipal utilities in this Coalition request this data from Ohio EPA, NOACA, and their respective city and county air quality departments, with baseline data collected before the plant is decommissioned.
- Community Engagement Sessions and Resultant Data: Tracked by consultant (described below).
- Energy Cost Reductions for Residents: Tracked by CPP, Painesville Electric, & CGE
- Construction and O&M Jobs Created: Tracked by project developers, CPP, Painesville Electric and CGE.

- Progress towards lakefront preserve including funding and implementation milestones will be reported by West Creek Conservancy

Data and analysis will be submitted to EPA and project stakeholders on a semi-annual basis and included in required EPA reports (submitted after year one and upon completion of performance grant period).

B. Community Engagement

Through community engagement opportunities, community members will have the ongoing opportunity to learn about the proposed projects and provide feedback. Community concerns will influence decision-making processes and project outcomes.

Community Engagement to Date - Public engagement efforts by the Northeast Ohio Areawide Coordinating Agency (NOACA) and the City of Cleveland have influenced the prioritization of GHG reduction strategies identified in this proposal. In developing its Priority Climate Action Plan, NOACA led robust and inclusive community engagement efforts in the region. In 2022 & 2023, NOACA staff implemented two primary climate action planning public engagement campaigns. The first campaign (November 2022 - January 2023) focused on general climate education. The second campaign (July-October 2023) sought input from the public with two primary objectives:

- 1) Better understand public perception of risk and vulnerability within communities and region, with a focus on low income and disadvantaged communities (LIDACs).
- 2) Better understand priorities for mitigation and adaptation strategies that public stakeholders will support (both politically and financially).

In total, NOACA conducted 30 community engagement sessions (i.e., Focus Groups) in the five-county region. Of those, 15 occurred in a LIDAC, including the initial two pilot workshops (City of Cleveland and Shaker Heights) that engaged 275 people. NOACA also conducted several Climate Fresh workshops, during which NOACA staff provided attendees information about climate change and discussed different ways to act; posted interactive climate information kiosks throughout the region; and provided an instrument for online input (300 respondents).¹⁹ An analysis of the feedback identified clean electricity as a priority greenhouse gas reduction measure for the public, perceived as being highly feasible and with a significant number of co-benefits. Nature based solutions were also prioritized during public engagement sessions.

Geographically focused outreach efforts have also been taking place in and around Painesville and within the City of Cleveland. The remediation of the former Diamond Shamrock property has been an ongoing concern to the local community. Throughout Occidental's ownership of this property, the company has hosted quarterly public meetings to keep community apprised of onsite remediation and clean-up efforts.

Throughout Fall 2023, the Cleveland Mayor's Office of Sustainability and Climate Justice used multiple engagement strategies to gain input on how the most vulnerable Cleveland communities experience climate hazards and how these communities may adapt to climate change. It conducted a public survey and has held four in-person public engagement sessions. These activities are the beginning of a comprehensive community engagement strategy in 2024 that specifically includes outreach and involvement of historically underrepresented residents in city decision-making related to climate change.

Ongoing Community Engagement by MECEC Coalition - Ongoing outreach efforts will continue to focus on residents within the City of Cleveland, within and around the City of Painesville, and other communities most impacted by the projects. The Coalition will form an advisory committee to help guide community engagement and provide input into the process. The advisory committee will meet quarterly and will consist of representatives from local government, community-based organizations, community development corporations, and other stakeholders including (but not limited to): Slavic Village CDC, Old

¹⁹ Northeast Ohio Areawide Coordinating Agency (NOACA). (2024). Cleveland-Elyria metropolitan statistical area priority climate action plan. 138. <https://www.epa.gov/system/files/documents/2024-02/cleveland-elyria-msa-pcap.pdf>

Brooklyn CDC, faith-based organizations (to be determined), West Creek Conservancy, the City of Painesville, the City of Cleveland, Cuyahoga County, and local residents.

The Coalition will also host ongoing public engagement sessions in both Cuyahoga County and within and around Painesville. Cuyahoga County and Cleveland will host quarterly sessions for the first two years of the project, with a focus on communities around the West 11th and Harvard Road landfill sites, where residents live close to the proposed projects and where there is currently no existing solar. Residents will have the opportunity to express concerns, learn about the environmental and cost benefits, and provide input regarding educational opportunities (including informational kiosks, student trips, and public tours). Community Development Corporations will be integral partners in this process.

The City of Painesville and West Creek Conservancy will host quarterly public engagement sessions focused on the future of the Diamond Shamrock site park. Public input will help shape the development of the park, its amenities, and its accessibility.

A competitively procured community engagement facilitation consultant will help the Coalition and the Advisory Committee to organize public meetings and to gather and interpret data. The process will not only help to guide the proposed projects, but will also provide useful guidance for state-wide brownfield reclamation, renewable energy, and conservation initiatives.

Section 5. Job Quality

The proposed project will trigger significant investment in the local workforce – requiring skilled labor for construction and ongoing operations - thus creating many quality jobs. To ensure that new job opportunities are high-quality and equitable, the Coalition will advance the Biden Administration's eight Good Jobs Principles. All contractors and subcontractors for the project will be procured via a competitive RFP process. This process will establish clear guidelines that will ensure prevailing wage rates, family sustaining benefits, safe working conditions, equal opportunity, and the free and fair choice to join a union. Workforce diversity will also be considered in the selection process for contractors and subcontractors.

The County Department of Equity and Inclusion conducts a Disparity Study every five years to identify inequities and establish DEI pre-qualifications for contracts based on the prevalence of qualified minority and women-owned businesses (MWBs) in the region. Outreach efforts will inform local certified diversity businesses of contracting opportunities, and DEI considerations will factor into RFP evaluations.

The Coalition also benefits from strong relationships with organized labor, including the **Cleveland Building and Construction Trades Council (CBCTC)** and the International Brotherhood of Electrical Workers (IBEW) Local 38 and Local 673, ensuring worker-friendly provisions in the bidding process. The proposed project will offer job opportunities for IBEW members and apprentices, with a focus on training candidates through the Cleveland Electrical Joint Apprenticeship and Training Center (CEJATC).

Cleveland Public Power negotiates community labor agreements with the local line worker trade union, IBEW Local 39. Together, CPP and the Local 39 offer apprenticeship opportunities for Cleveland Municipal School District students through CPP's 'Intern to Apprentice Program.' This program incorporates a state-certified apprenticeship program, which combines paid, supervised on-the-job training with classroom instruction. The CPP program is aligned with the local lineman union 39 and their National Joint Apprenticeship Training Center in Cleveland. Line construction work and ongoing maintenance for CPP connected projects will be performed by CPP union workers, creating new job opportunities and additional experience for apprentices.

Painesville Electric has a collaborative working relationship with IBEW Local 673. The City negotiates collective bargaining agreements with the union for bargaining unit members in the Electric Plant and Electric Distribution sections of the Electric Department. Painesville Electric will work with Local 673 to certify current plant employees for solar and battery operations, in addition to hiring additional employees to service this new infrastructure. Recently, Painesville Electric established its own training school in collaboration with American Municipal Power (AMP). Through this on-the-job program and through a series of classes administered by AMP, participants receive lineman certifications.

Section 6. Programmatic Capability and Past Performance

- A. Past Performance:** The following list of federal and state grants have been awarded to and managed by lead applicant, Cuyahoga County:
- 1. Project title:** Rapid Rehousing for Singles
Assistance agreement number: OH0546L5E022206
Federal/non-federal funding agency and assistance number: HUD; 14.267
Description: The Office of Homeless Services (OHS) received \$544,821 from HUD through the Continuum of Care Program Competition for the Rapid Rehousing for Singles program for the grant period of 10/1/23 – 9/30/24. This program, which is administered by the Salvation Army, provides ongoing rental assistance and case management for single adult men with substance abuse issues.
Contact: Roman Seaburg, HUD Senior CPD Representative
Discussion: OHS provides quarterly and end-of-year reports through the HUD-mandated Homeless Management Information System. This performance is then evaluated against what was proposed in the application and used as a determinant in funding future awards.
 - 2. Project title:** Homeless Crisis Response Program
Assistance agreement number: B-L-23-1DD-2
Federal/non-federal funding agency and assistance number: State of Ohio Office of Community Development; 14.231
Description: OHS received \$1.4m from the State of Ohio Office of Community Development Homeless Crisis Response Program (HCRP) for the grant period of 9/1/23 – 6/30/25. Emerald Development and Economic Network, Inc (EDEN) administers this program, offering rapid rehousing to households at imminent risk of homelessness.
Contact: Stephanie Hartzler, Supportive Housing Specialist
Discussion: OHS provides quarterly and year-end reports using federal Emergency Solutions Grant guidelines.
 - 3. Project title:** Pass-through FY2022 Title II Formula Juvenile Justice and Delinquency Prevention Grant
Assistance agreement number: 2021-JJ-RPU-0795
Federal/non-federal funding agency and assistance number: Ohio Department of Youth Services, Bureau of Courts & Community; 16.50
Description: To address the Disproportionate Minority Contact with the legal system (specifically the overrepresentation of minority youths in the juvenile justice system). Project targeted minority, at-risk juveniles from age 10 – 17.
Contact: Dion Baines
Discussion: Project was administered through agreements with sub-recipients who provided direct service to youth. Sub-recipients were required to submit monthly financial reports and semi-annual program metrics. The County conducted annual, on-site monitoring visits of all sub-recipients and maintained constant communication throughout the contract periods.
 - 4. Project title:** Cuyahoga County Brownfields Revolving Loan Fund
Assistance agreement number: B-00E64101-B
Federal/non-federal funding agency and assistance number: U.S. EPA
Description: Cuyahoga County Department of Development received \$3.1 M for the grant period of 10/01/2008 - 7/31/2025. The program makes loans and subgrants to eligible entities for cleanup of hazardous substances and petroleum at eligible brownfield sites in Cuyahoga County to support revitalization and beneficial reuse of the sites.
Contact: Karla Auker
Discussion: The Department of Development, staffed with an in-house Fiscal Department and a hired environmental professional that has partnered with 3 staff project managers, continually supported those

awarded loans and grants until project completions. Upon project work completion, fiscal staff was able to provide timely compensation to bring the projects to closure.

B. Reporting Requirements

1. Project title: Rapid Rehousing for Singles

History of meeting requirements: OHS submitted the initial quarterly report and is monitoring progress toward both timely grant spending as mandated by HUD and program outcomes. The grant is still open so no final report has been submitted.

2. Project title: Homeless Crisis Response Program

History of meeting requirements: OHS submitted the initial quarterly report and is monitoring progress toward timely grant spending and program outcomes. The grant is ongoing.

3. Project title: Pass-through FY2022 Title II Formula Juvenile Justice and Delinquency Prevention Grant

History of meeting requirements: The County submitted all quarterly and semi-annual reports to the funder on-time.

4. Project title: Cuyahoga County Brownfields Revolving Loan Fund

History of meeting requirements: Cuyahoga County Department of Development timely submitted quarterly reports, end of year reports, and fiscal reports. Environmental Professionals involved with each project reported on any clearances and NFA (No Further Action) letters. To date, all reporting requirements have been submitted.

C. Staff Expertise

Cuyahoga County (Lead Applicant) - Striving to accelerate progress on climate and equity goals, Cuyahoga County has worked effectively over the last six years to develop renewable energy projects and programs, with a focus on underserved communities. Specifically, the County has:

- Developed a 4MW landfill solar site on a Justice 40 Census tract in Brooklyn, Ohio. The first landfill solar installation in the entire State of Ohio, this project won a national award from Solar Builder Magazine as its Gold Prize winner for 2018 due to its creative use of virtual net metering through Cleveland Public Power and its use of all Ohio-made panels and racking systems.
- Partnered with Solar United Neighbors to run a residential solar buying co-op which has installed over 275 arrays, including a new pilot project in Cleveland that provided ten Habitat for Humanity homeowners with rooftop systems.
- Installed almost 1.5 MW of solar on four County buildings and through its joint procurement powers at the County, allowed the cities of Cleveland Heights and Lakewood to piggyback off its contract to install solar on an additional seven facilities in those cities. Altogether, this amounts to almost 3MW of solar added to eleven government owned buildings in the last four years.
- Created its own County utility authority in September of 2022, which will enable the County to develop microgrid districts throughout at least three regions of the County in the next five years.

In developing its Climate Action plan, the Department of Sustainability worked with the Planning Commission to develop the Climate Vulnerability Map, which is now used to make resource allocation decisions for renewable energy projects as well as other Department of Sustainability programs (such as the Healthy Urban Tree Canopy Program and the Plastic Bag Reduction grant program). **Please see Team Bios Appendix for a description of each partner organization and core team member biographies.**