



Project Title: Circular Cleveland: Advancing Health, Equity, and Climate in the Great Lakes
Legal Name of Applicant Organization: Cleveland Neighborhood Progress

1. Project Focus, Components, and Activities.

Circular cities work to design out waste and pollution, keep products and materials in use to maintain their value, and regenerate natural systems. Cities, which consume 75% of natural resources, are uniquely positioned to lead the transition toward a circular economy because of their innovation, density, and potential for positive transformation. Circular cities strengthen resilience by increasing economic productivity, creating new business and job opportunities, shortening critical supply chains, protecting natural systems, and reducing pollution to improve health outcomes. European Commission President Ursula von der Leyen told EU lawmakers, a “circular economy will make us less dependent and boost our resilience. This is not only good for our environment, but it reduces dependency by shortening and diversifying supply chains.”

One key aspect of circular economies is recycling. In the U.S. there is the potential to divert more than 85% of the 837 million tons of municipal solid waste and construction and demolition debris generated each year. Yet, the national recycling rate in 2017 was 35%, with another 10% composted. This number has likely reduced significantly since due to China’s National Sword Policy to reject plastic and paper from abroad, in combination with the lack of local or regional markets for diverted materials. Like many cities across the U.S., especially lower income communities, Cleveland’s recycling program is paused due to skyrocketing costs, high contamination rates, fiscal pressure resulting from COVID-19, and limited local markets to divert materials. Creating a circular Cleveland will help create a sustainable municipal recycling program, and go far beyond.

When considering the full life cycle of materials, including reduction, recycling, composting, transportation, and more, addressing waste comprehensively can reduce GHG emissions 20 – 25%. The world is currently only 9% circular, which represents the amount of natural resources converted to products and materials that are re-used each year. Moreover, the circular economy is needed to address an estimated 45 to 60% of global emissions, making it necessary to meet the Paris Agreement target of limiting global warming to 1.5°C. At the same time, COVID-19 is creating a global push to shorten supply chains so local economies are more resilient to external shocks.

In 2018, the World Health Organization developed the most comprehensive assessment to date of the circular economy’s impact on health. It cites health benefits associated with redistribution of edible food, waste reduction and recycling in the health sector, remanufacturing and refurbishment, shifts in consumption patterns, efficient use of resources, and more. The report also warns against some potential health risks associated with circularity, especially processes related to hazardous materials. More research is needed here, as the WHO states, and this project has the opportunity to inform this growing body of research.

Localizing the circular economy in Cleveland addresses health and equity from two other key perspectives: environmental justice and poverty reduction. For example, transitioning to a circular

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economy will reduce the amount of waste hauled to landfills (and illegally dumped), including to and from Cleveland's Ridge Road Waste Transfer Station and the surrounding low-income neighborhoods. Cleveland also faces severe problems with soil contamination, especially lead, which contributes to 12.4% of Cleveland's young children with dangerously high blood lead levels. People of color and low-income communities in Cleveland suffer the worst from hazardous homes and tainted soils. A commitment to soil health through Cleveland can help reduce these inequities (and also sequester GHGs).

The circular economy can advance equity by creating new opportunities, industries, and jobs, which COVID-19 is making more important than ever. For example, estimates show that for every 10,000 tons of waste, 1 job can be created if incinerated, 6 jobs if landfilled, 36 jobs if recycled, and up to 800 jobs if refurbished and re-used. The circular economy is labor and technologically intensive, creating opportunities for a diverse range of jobs, including those with low barriers to entry. Just transitions are only possible however if these workforce pathways are underpinned by engagement, education, and local support. Critically, many partners in Cleveland are already focused on targeted workforce development and training, as well as inclusive participation in innovation forums.

JOINING A GLOBAL NETWORK

No crisis should go to waste, especially a waste crisis. Industry and market turbulence creates real opportunity. Even when recycling was "working" it wasn't sustainable. Shipping single-use plastics and paper to China was unhealthy for both countries and every community in between. Taking advantage of the health, equity, and climate benefits of a circular economy requires a holistic examination of all material flow in Greater Cleveland, developing a circular economy roadmap, and a community-wide commitment to implementation. This is no easy task, but fortunately Cleveland can learn from a number of cities globally that have started aggressively down this path.

Circular Cleveland will bring together the Ellen MacArthur Foundation (EMF), Cleveland Neighborhood Progress, the City of Cleveland, and many local partners already engaged in this work. By joining EMF's Circular Economy 100 (CE100) network, Cleveland would gain a global perspective on the pivotal role cities are serving to advance the circular economy through cross-agency and cross-sector collaboration, setting local goals and policies, establishing new policy levers and incentives, and supporting market development opportunities. CE100 includes leading global circular cities, such as Toronto, London, and Milan. This network provides an ideal space to learn, share cross-sector knowledge, and put circular economy ideas into practice.

Toronto is one CE100 member whose approach is relevant and adaptable to Cleveland. Toronto has developed a multi-sector approach that has already resulted in individual and collaborative action. Its circular economy approach to service delivery continues to challenge the City to rethink how it provides services to all of its residents. As a result, Toronto was the Runner Up in the Public Sector Category of the 2019 Circulars — the world's premier circular economy awards. Learning from Toronto might also serve cities across the Great Lakes that not only share a familiar geography, but also similar challenges with climate, health, and equity.

TOWARDS A CIRCULAR CLEVELAND

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Creating a Circular Cleveland will help create resilience in the recycling sector, bolster local economies, create green jobs for those most in need, and reduce climate pollution by localizing the circular economy. During the grant period, the project will focus on city planning, policies, and projects that address waste, food systems and food security, and adaptation/resilience.

The project will be structured around two overarching phases, both centered on action. Phase 1, lasting 12-15 months, will result in a comprehensive circular economy scan and roadmap. This includes research into similar approaches from CE100 city partners, such as Toronto's Long-Term Waste Management Strategy and identifying which of its circular economy initiatives can be adapted to Cleveland. EMF will also bring other global best practices to bear. Examples include community reduce and reuse programs, organic waste infrastructure, City and institutional policies (e.g. extender producer responsibility), support for local business advancement, and more. Opportunities related to Cleveland's waste transfer facility will be incorporated into this analysis. Phase 1 will also incorporate findings from the refreshed recycling program rollout, planned for the first quarter of 2021.

Data collection, disaggregation, and analysis is a crucial early step in this project that will involve many project partners. It lays the groundwork for action and policies that support distributional access. The City is in the process of developing updated waste-related data that will be foundational. There's also a number of existing data sets and analyses that can inform this work, including energy, health, and socio-economic data at different resolutions to help identify areas of greatest need or those which have been historically underserved. The process of establishing key performance indicators and setting goals for reducing disparities will be an important part of the roadmap process.

Phase 1 will also include ten workshops to gain community input and support resident-led, neighborhood-based circular economy projects with Cleveland Climate Action Fund grants up to \$5,000 each. The project team is confident that planning and implementation can occur simultaneously, as it did with the city's Climate Action Plan, which won the 2019 American Planning Association's award for best "community sustainability or resiliency plan".

Phase 2, lasting 15-18 months, will focus on roadmap implementation along with a second round of Cleveland Climate Action Fund projects focused on advancing an equitable circular economy. While specific programs and policies will depend on the roadmap itself, actions will center on advancing recycling, food rescue/composting, and small business incentives, all supported by robust engagement and communications. For example:

- The City's Department of Economic Development to rollout circular economy incentives for small businesses. This could center around supporting the marketplace and industry to extend resource lifecycles to ensure maximum useful potential (think reduce, share, repair, reuse, recycle and energy recovery from organics).
- The City's Department of Public Works to invest in public composting facilities that support a number of healthy food and soil initiatives, including tree maintenance. Three key locations include Cleveland's West Side Market and new community composters that addresses need on both the east and west sides of the city. The Carbon Neutral Cities Alliance identified a barrier to transforming solid waste systems as a lack of local infrastructure for processing waste materials, including organic waste, into usable feedstock. This project seeks to break down this barrier by identifying business opportunities through identification of end uses and end users.



- The Mayor's Office of Sustainability, CNP, and the Circular Economy Working Group to launch expanded education and engagement efforts, building off of Phase 1.

2. Inclusion and Community Engagement.

Even before COVID-19 struck, the City of Cleveland and a number of partners were beginning to transition toward a circular economy. Now, as the city and larger metropolitan region imagine what's next, there is a clear opportunity to go beyond a recycling reboot and begin integrating circularity into the new economy. With a pre-COVID poverty rate of 33%, and 50% of its children living in poverty, Cleveland is the second poorest large city in the country. Across the city and region, the strongest indicator of health status is poverty. Action to create a circular economy fits in Cleveland because it addresses this head on, along with environmental and climate concerns in the community. As such, this project targets people living in poverty, environmental justice communities, and small businesses.

Both project phases will support resident-led, neighborhood-based circular economy projects throughout Cleveland with technical support and grants up to \$5,000 each. While the team gains valuable community input through ten neighborhood workshops to inform a circular economy roadmap, we will also be supporting residents in translating their top priorities into results through the Cleveland Climate Action Fund. Through Neighborhood Connections, residents will receive assistance on how to apply for grants, as well as the option of raising additional dollars through the ioby crowdsourcing platform.

Workshops will be developed in partnership with historically underserved neighborhoods, especially environmental justice neighborhoods that are suffering the worst health outcomes and climate impacts. Workshops will be structured to first identify neighborhood assets and concerns, then to create projects that build off assets and address concerns, and finally to link actions back to climate and the circular economy.

These inclusion and engagement strategies build off strategies utilized by CNP and the City in the development of the 2018 Cleveland Climate Action Plan, resulting in over 20 funded projects. This workshop model achieved strong levels of self-reported engagement because it was designed to appeal to various styles. The moniker of the workshop series: "Learn More. Say More. Do More." reflects a spectrum of engagement, "Be informed, Be involved/consulted, Be empowered and collaborate", respectively. Over 90% of participants were inspired to do a project; 92% felt they understand climate change better, and 87% made a connection during the workshop. The team found that when residents are given the opportunity to lead, to creatively make solutions to issues in their own neighborhood, to possibly ask their neighbors for contributions (in the form of donations, volunteer time, or ideas), and to implement the projects themselves, a new paradigm can emerge. These residents now have greater opportunity for agency, to know that change is possible and to develop new civic leadership and circular economy skills. Continuation of this model of engagement also builds direct accountability for the City, CNP, and partners in response to resident inputs. A co-benefit is often better relationships between residents and city government.

Both phases will also be supported by a new Circular Economy Working Group, modeled after Toronto's successful approach. Toronto's group includes representatives from local businesses and

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community groups across the city, to support the City in becoming the “first circular city in Ontario.” In Cleveland, we imagine a similar process, resulting in a group of 30-40 members will serve an advisory role on all aspects of this project including roadmap development, project planning, implementation, and evaluation. In developing their Long-Term Waste Management Strategy, Toronto receive approximately 3,400 survey responses – Cleveland plans to review this approach to get comparable levels of engagement throughout the community. Working group members will fill out a simple application process to join. The group will include voices from all stakeholders, including local industry, low-income communities, communities of color, circular economy community partners, and the public sector.

The group will include at least 10 Circular Cleveland Ambassadors, residents that will receive a stipend to participate. This approach is based on a Climate Ambassador model developed by CNP as part of the Climate Resilience and Urban Opportunity Initiative. That project had 16 ambassadors, four from each of the four neighborhoods that participated.

For this project, all Working Group members will receive free racial equity training through the Racial Equity Institute (REI). In 2016, CNP invited REI to Cleveland to facilitate both its half-day Groundwater training and a two-day Racial Equity Training: Phase I. This intensive introduction to systemic racism challenged deeply-held assumptions and revealed—with sobering clarity—the devastating impacts of persistent racial inequality on our nation’s most marginalized populations. Feedback from participants made it abundantly clear that Cleveland was ready for a citywide movement to advance racial equity and inclusion. Since then, more than 2,000 people have received training. After training is complete, working group members will assist CNP and the Mayor’s Office of Sustainability in creating a racial equity tool, adapting a tool already used to inform development of the 2018 Cleveland Climate Action Plan. This tool will be used to ensure anticipated outputs produce the desired equity outcomes. We believe in this approach, in part because a number of local organizations and peer cities have subsequently used it in their own work.

Finally, local project partners bring a wealth of additional experience related to engagement in different aspects of creating a circular economy. Along with its Climate Resilience and Urban Opportunity initiative, CNP led Reimagining Cleveland. This initiative led to more than 150 vacant reuse projects, seeking to create sustainable solutions to vacancy while building a movement of solidarity and stewardship. The Mayor’s Office of Sustainability has engaged the public on recycling, waste reduction, and plastic pollution reduction for more than a decade. Kristin Hall, the project’s co-director, has also chaired the Zero Waste Northeast Ohio group, members of which would likely join the larger Circular Economy Working Group. Finally, Neighborhood Connections has engaged more than 3,000 members and funded more than 2,600 projects since its formation in 2003. They would bring this deep experience in authentic engagement to projects focused on the circular economy.

3. Communications and Dissemination.

One of the big advantages of having a large working group is the opportunity to partner with leaders to share ideas, insights, and lessons learned within Greater Cleveland. We imagine communications will end up becoming a subgroup, with a number of representatives joining. The Mayor’s Office of

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Sustainability, with its history of engagement with Sustainable Cleveland, will help manage these efforts. This subgroup will develop materials to then share with RWJF staff and other RWJF grantees.

To support development of communications materials, \$25,000 is allocated toward outputs such as:

- Celebration event, about halfway through the grant period, with all participants who helped develop the roadmap and projects in development
- Communications toolkit (Logo, website, social media, etc.)
- Short video to summarize the Circular Cleveland and help galvanize action, to be played at events such as the Sustainable Cleveland Annual Summit
- Case study development, highlighting businesses and neighborhood projects that are advancing an equitable circular economy

These materials and more will support the team in sharing widely, including among other cities and communities. Examples include:

- CE100 network activities
- Urban Sustainability Directors Network (USDN) webinars and other communications
- Apply to be recognized in the Public Sector Category of the Circulars — the world's premier circular economy awards
- Any future Great Lakes convenings around advancing circularity in the region

Whether it was the Climate Resilience and Urban Opportunity Initiative, Sustainable Cleveland, or Cleveland Climate Action Plan, community members were front and center in communicating the work. This project seeks to build off lessons learned from those projects to make Circular Cleveland even more community-driven. By having small businesses and ambassadors share their own stories, a virtuous cycle can be created where leadership and power is shared more throughout the city and everyone benefits.

This project will only maximize its impact by sharing the successes (and lessons learned) throughout Northeast Ohio, with RWJF, and peer cities across the world. In so doing, Cleveland's approach to an equitable circular economy can then inform programs, grantmaking, and investment to help scale this critical work.

4. Program Team and Collaborators.

Cleveland Neighborhood Progress (CNP), the project's lead applicant, serves as the city's foremost community development funding intermediary, a thought leader, an advocate for the community development industry's policy priorities, and an investor in operating capacity for Cleveland's robust network of community development corporations (CDCs). CNP's heart lies in community engagement, especially with those residents and neighborhoods experiencing racial disparities. This project seeks to build off CNP's experience with the Kresge Foundation's Climate Resilience and Urban Opportunity Initiative, which focused on four Cleveland neighborhoods. Linda Warren, Senior VP of Placemaking, led that initiative and will serve as lead on this project as well. Divya Sridhar, Climate Resiliency Fellow, will provide additional support.

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The City of Cleveland is project co-director. The following three departments will take a leading role: Sustainability, Public Works, and Economic Development. The Mayor's Office of Sustainability will lead the public engagement aspects of this project. This builds off a decade of work with Sustainable Cleveland, where the department actively engaged more than 15,000 people in co-creating a "green city on a blue lake." This project also builds off of the office's facilitation of the Cleveland Climate Action Plan and its years of working on zero waste initiatives. Kristin Hall, Sustainability Director, will serve as the main point of contact. Jason Wood, Chief of Sustainability, will also be integrally involved along with other members of staff. The Department of Public Works, along with Sustainability, is leading the rethinking of the City's recycling program and any composting initiatives that result from this project. Terrell Cole, Deputy Chief of Operations, will be the point person within Public Works. The Department of Economic Development and its director, David Ebersole, will lead on programs to support small businesses in advancing a circular economy. Other key departments will likely participate in certain aspects of this initiative, include Public Health, Planning, Purchasing, and Community Development.

EMF launched in 2010, and is now the leading international organization focused on the transition to a circular economy. EMF works with business, government, and academia to build an economy that is restorative and regenerative by design. It's collaborations with government and institutions informs policymakers and supports public-private co-creation mechanisms. EMF's CE100 network is unique in its ability to provide a multi-sector space to learn, share knowledge, and put ideas into practice. EMF is based on the Isle of Wight, an island off the south coast of England. The lead team member will be Ashima Sukhdev, Government & Cities Programme Lead. She brings a wealth of experience not only in connecting cities to each other and circular economy best practices, but to leading companies and non-profits working in this space. Nik Engineer, Executive Lead of North American operations, will provide support. Nik was a keynote speaker at the 2019 Sustainable Cleveland Annual Summit.

For this project, a systems approach and wide variety of community partners are needed to ensure results are equitable and comprehensive. In this respect, Cleveland is ready to hit the ground running, in large part due to the number of organizations and community partnerships to build from. Examples not already discussed include:

- **Health Leaders:** The Cleveland Clinic is committed to reusing or recycling 100% of its non-hazardous waste, and Metro-Health is committed to being the first hospital-led EcoDistrict in the world.
- **Cuyahoga County:** While individual cities can do a lot, circular economies are not possible without regional collaboration. Cuyahoga County will be critical in this respect, especially its Solid Waste District, Sustainability Department, and Development Department.
- **Ohio Materials Marketplace:** State of Ohio network of businesses, organizations and entrepreneurs where one organization's hard-to-recycle wastes and by-products becomes another organization's raw material.
- **Manufacturing Leadership:** 900+ manufacturers in the City of Cleveland, and 6,000+ countywide, all supported by organizations like MAGNET that are looking for ways to advance a circular economy.
- **Great Lakes Biomimicry:** Cleveland-based non-profit that helps organizations learn from nature to accelerate innovation.

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- **Local Food:** The City of Cleveland is a national leader in local food policy, and there are a number of non-profits focused on food access and supporting healthy food (e.g. Evergreen Cooperatives, Ohio State University Extension, Refugee Response)
- **Food Waste Reduction and Recovery:** Organizations like Rust Belt Riders and Rid-All Green Partnership are leading in food waste composting, Stone Soup Cleveland and Greater Cleveland Food Bank are reducing food waste (40% of food is wasted getting it from farm to table), and Quasar is helping local organizations turn their food waste into energy and soil.
- **Urban Drawdown Initiative:** Cleveland is a partner in this new national initiative focused on community solutions that remove (or sequester) carbon from the atmosphere.

5. Key Assumptions and Challenges.

Cleveland's next Mayoral election is taking place November 2021, in the middle of this project. If Mayor Frank Jackson does not serve another term, it is assumed that the next mayor will continue to support the project. That support includes a commitment to municipal recycling, implementation of the roadmap developed in Phase 1, and allocation of City staff time. Given the widespread support for recycling, small business, and the key project partners, we believe this is a valid assumption.

The main challenges associated with this project include uncertainties caused by COVID-19 and ongoing flux in the local and global recycling market. Like all cities, COVID-19 is impacting Cleveland's budget and the prices received for diverted materials is impacting the cost of municipal recycling programs. While these factors will influence how extensive the City's new recycling program will be, it remains committed to offering curbside recycling.

COVID-19 will also impact the program's communication approach. For example, workshops scheduled to begin in 2021 will likely be affected. Depending on the health risks associated with the pandemic at that time, the workshops can change in format (e.g., go virtual) or be moved back so they begin in late 2021 or early 2022. The Circular Cleveland Working Group, in consultation with RWJF, will adapt as necessary to eliminate unnecessary health risks for participants.

Taking these assumptions and challenges into account, the program team believes the timing is still right to undertake this project. The team is nimble enough to mitigate these known risks and will work proactively to address any unforeseen challenges that may lie ahead.

6. Evidence of Success.

By 2023, Cleveland's vision is to be well on its way to becoming a circular economy leader. The City and its partners will have already implemented key programs, policies, and projects to create a strong foundation for a circular economy, and the Cleveland Climate Action Fund will have funded at least 15 resident-led projects. New businesses supporting healthy food and healthy soils will have been created or expanded. The city will have begun reducing its emissions associated with waste processing and transportation. Circular Cleveland will be a model for regional collaboration, as well as other cities facing similar challenges with climate, health, and equity. Finally, local health and climate

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fundors will be on board to advance the longer-term projects included in the roadmap. This is what success looks like.

As detailed in the work plan, this project includes a number of different tasks and milestones. The co-leads will ensure that the project team stays on track throughout the project with regular check-ins. Implementation progress of the overall plan will be tracked annually, similar to Sustainable Cleveland's Dashboard of Indicators, and reported out through partner channels.

Tracking progress and demonstrating impact on equity will require a variety of aspects. With regard to engagement, the neighborhood workshops and working group meetings will only be successful if they reflect the diversity of Cleveland. Cleveland is 66% people of color and 58% of residents are low-income (below 300 % of federal poverty level). Its largest immigrant communities are from India, Mexico, and China. Recent refugee communities hail from Burma, Bhutan, Somalia, Ukraine, Russia, and Iraq. Workshop leaders will work with CDCs, local institutions (e.g., places of worship), and neighborhood leaders to identify and invite residents who have previously been left out of civic conversations and decision-making. The workshops will support participation by providing food, translation services if needed, and offering different times and days of the week. The impact of community engagement will be measured through a follow up survey (bolstered by offering prizes), similar to the one created during the climate action planning process and then presented at a USDN webinar on integrating racial equity into climate action.

One goal of the Racial Equity Training is to develop a shared approach for ensuring voices that have historically had less access to power and influence be heard and reflected in project outcomes. Recognizing the challenge of systems change while in the middle of the system, this type of restructuring will be a key indicator of project success. Progress will be measured using a Racial Equity Tool to be adapted for this project, and used to assess plan recommendations and subsequent implementation.

The project will assess the percentage of key performance indicators in the roadmap that can be disaggregated by race. For example, citywide data on air quality will not be rated as highly as tree canopy data that can correlate percent canopy against the racial makeup of neighborhoods. For those indicators where detailed data is lacking, the roadmap will include next steps to improve data collection to account for race.

Resident-led projects funded through the Cleveland Climate Action Fund, as well as support for small businesses, will be tracked by neighborhood to ensure they are equitably distributed. The Mayor's Office of Equal Opportunity can support tracking of support for minority and female-owned businesses that support a circular economy.

Additional health-related indicators related to food will be tracked, including food waste reduction, composting, access to local food, and food waste to energy. Tracking progress related to soil health (including lead contamination) is a work in progress, but Cleveland is partnering in the Urban Drawdown initiative to begin that process.

During this project, the City will also update its greenhouse gas inventory to be consumption-based. As C40 states, "this focuses on the consumption of goods and services (such as food, clothing,

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electronic equipment, etc.) by residents of a city, and GHG emissions are reported by consumption category rather than GHG emission source category.” This type of accounting will allow the City and its partners to more accurately assess emissions and the impact of circular economy actions on those emissions. The City’s goals for GHG emissions reductions are 16% by 2020, 40% by 2030, and 80% by 2050. As of 2016, the city had reduced emissions 8% compared to 2010.

With the transition to a circular economy only just beginning in the U.S., this project would help set the terms of this transition to ensure it integrates health and equity priorities along with climate. Cleveland would be the first U.S. Great Lakes city to fully embrace this concept, and along with Toronto, could help accelerate this transition in the larger region. EMF and the CE100 network are increasingly adapting circularity to a U.S. context; this project can help considerably with that work. Project findings can also influence the work of other U.S. networks working in sustainability, health, and climate. These include USDN, ICLEI, C40, Carbon Neutral Cities Alliance, National League of Cities, and the U.S. Conference of Mayors. This project will be successful if the approach and actions taken in Cleveland support national and global progress in health, equity, and climate.