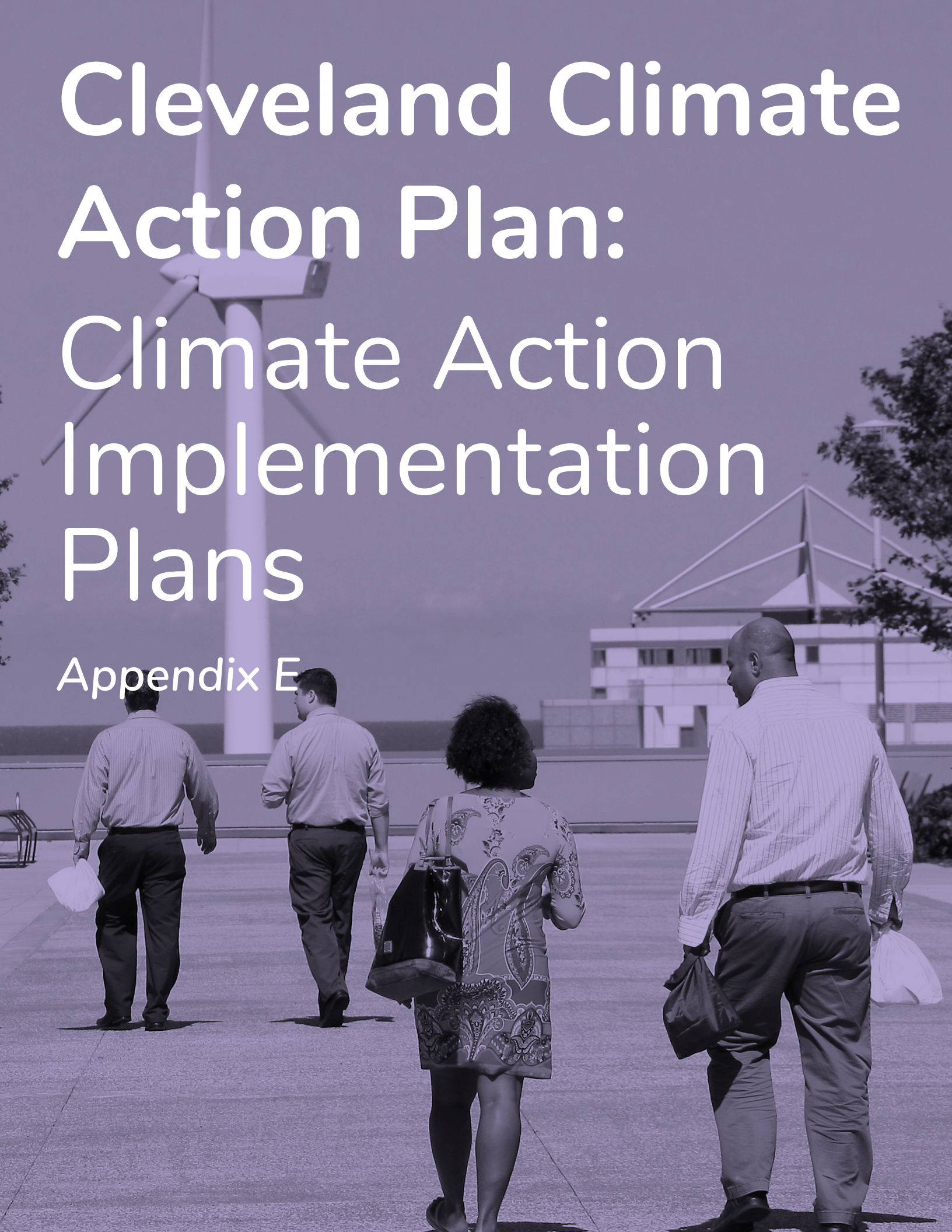


Cleveland Climate Action Plan: Climate Action Implementation Plans

Appendix E



Focus Area:
Energy Efficiency & Green Building

Goals:

- By 2030, reduce residential and commercial energy use 50% and industrial use by 30% saving Cleveland households and businesses \$170 million annually from utility savings.
- All large commercial and industrial buildings are tracking and managing their energy use by 2023

Objective 1: Make more homes affordable, comfortable, healthy, and energy efficient

Indicators:

- # of residential units meeting Enterprise Green Communities
- Participation rates in utility EE programs
- # lead safe homes—disaggregate
- Healthy Housing Rating (NCHH)
- Energy use per residence by zip code

Actions	Key Implementers, Collaborators & Advisors	Notes
<div>a</div> Educate owners and tenants of affordable, multifamily housing about cost-savings gained from energy efficient homes through training programs	Cleveland EnergySaver, CMHA, Environmental Health Watch, Cleveland Housing Network,City of Cleveland	Affordable & Multifamily Housing Workshops - technical experts speak with builders, developers, property owners, and facility managers to address solutions to issues faced when working on energy efficiency retrofits
<div>b</div> Hold regular workshops with building contractors on green building best practices	City of Cleveland (Comm Dev, Sustainability)	Based on study of actual performance of Cleveland homes, more contractor training needed on air sealing and lighting (less needed on insulation)
<div>c</div> Expand marketing plan for home weatherization citywide	Cleveland Housing Network, Cleveland Neighborhood Progress, City of Cleveland (Com Dev)	Use lessons learned from Cleveland Neighborhood Progress's Climate Resilience and Urban Opportunity initiative (targeted mailings)

d	Pursue coordinated “one-touch” approach to expand low-income housing programs by layering healthy homes, lead, and weatherization programs	City of Cleveland (Public Health), Cleveland Housing Network, CDCs, Environmental Health Watch	Research options for incentivizing conservation, including among low-income residents who do not pay utility bills; research expanding low-income guidelines so more residents qualify for HWAP; Including programs that provide home visits on low cost interventions such as weather-stripping and caulking.
e	All local utilities provide energy efficiency incentives and other resources to customers	Electricity and Gas Utilities	Use programs with a whole-house approach to make any size or style of home more energy efficient, thus lowering energy costs; Home Performance with ENERGY STAR® Program; Interfaith Power & Light Energy Audits for homes and House of Worshipships (HELP Loans)

Objective 2: Prioritize energy efficiency in small and mid-size businesses

Indicators:

- # of EnergyStar & LEED Buildings
- % reduction in commercial/industrial energy use
- MBE/FBE green businesses
- Energy use per GDP
- # of commercial and industrial groups that report energy use

Actions	Key Implementers, Collaborators & Advisors	Notes
a Coordinate and expand green building support to more sectors and neighborhoods	Cleveland 2030 District, USGBC NEO, City of Cleveland, CDCs, major property owners, managers and developers	Ensure resources and support for energy efficiency, renewable energy, and green building are coordinated, easy to use from a customer perspective
b Explore energy efficiency policy options, including mandatory benchmarking and disclosure programs	City of Cleveland (Sus., ED) Institute for Market Transformation, Cleveland 2030 District	Possible coordination with other Ohio cities; Benchmarking is part of a larger suite of energy efficiency policies; Utilities supporting electronic data transfer; important to make whole building energy data easily accessible

c Establish a local Industrial Assessment Center to support students and manufacturers in advancing energy efficiency	Case Western Reserve University	Support the industrial sector's transition to less energy and water intensive practices through the development of collaborative programs, incentives, training, and data collection; support small and mid-sized manufacturers and connecting them to energy and waste resources
d Establish Cleveland as a leader in U.S. DOE's Better Buildings Program and Better Plants Program	City of Cleveland, Cleveland Clinic, Forest City, CMHA, Alcoa, ArcelorMittal	Cleveland hosting 2018 U.S. DOE Better Buildings Summit

Objective 3: Support community hubs to be more efficient and resilient

Indicators:

- Community Hubs serving as heating/cooling centers
- Able to go off-grid

Actions	Key Implementers, Collaborators & Advisors	Notes
a Work with neighborhoods to identify and connect community hubs with limited resources to existing programs (rec centers, libraries, schools, places of worship, etc.)	Schools, Cleveland Public Library, City of Cleveland rec centers, community health centers, places of worship, CDCs, Colleges, hospitals	e.g. free energy audits; Track and showcase the number of community hubs ("third places") retrofitted; Air quality sensors at hubs; Shared-use agreements; Burten, Bell, Carr an example of resiliency hub
b Ensure energy efficiency and resiliency are prioritized in new school construction and retrofits	Cleveland Metropolitan School District	Connect green schools to curriculum; Building upon the state's requirements for LEED schools; more clean energy at schools

Objective 4: Promote new construction and major renovations that meet high green building standards

Indicators:

- # of third-party certified green buildings

Actions	Key Implementers, Collaborators & Advisors	Notes
a Develop more formal green policy for new commercial buildings that goes beyond code, especially for those projects receiving public money	City of Cleveland (Sustainability, Econ Dev)	Appropriate requirements when development projects receive public dollars; State of Ohio dictates local building codes, including energy efficiency; Continue to use research data and incentives to promote above code construction/major renovations; Continue education/outreach to code officials and developer community
b Update Cleveland Green Building Standard to incorporate new codes, support higher performance building, and advance social equity	City of Cleveland (Sustainability, Comm Dev)	Ensure projects receiving tax abatement are energy efficient; Explore LEED Social Equity Pilot credits/SEED Certification
c Incentivize continued use of financing tools to promote green building	Enterprise Community Partners, Cleveland Housing Network, Cuyahoga County, City of Cleveland, banks, utilities	Housing credits, revolving loan fund, green bank, HOME Funds, LIHTC, etc.

Focus Area: Clean Energy

Goals:

- 25% of electricity use in Cleveland is supplied from renewable sources by 2030 (15% by 2022)
- Ensure all residents and businesses have access to affordable clean energy programs
- 100% of electricity demand from clean energy by 2050

Objective 5: Generate more solar energy locally

Indicators:

- Solar Installations count and MW
- % energy produced from solar

Actions	Key Implementers, Collaborators & Advisors	Notes
a Gain recognition as a SolSmart Silver or Gold level city	City of Cleveland (Building and Housing, Sustainability, Planning, CPP)	Possible actions include reduced permit review times, new code focused on solar similar to the existing wind energy code, incorporating solar into planning design review (e.g. encourage solar ready design, even if solar installation not required)
b Partner on a county-wide solar strategy to expand solar, especially to low and moderate income households	City of Cleveland, Cleveland Housing Network, CMHA, County Sustainability, solar developers	Cleveland has joined DOE's Clean Energy for Low Income Communities Accelerator; Refer to five models in Clean Energy Group Report "Owning the Benefits of Solar+Storage"; Incentive exploration, including through the Countywide solar co-op
c Identify and install community solar projects on vacant and/or contaminated land	CPP, CMHA, County and City Land bank, large orgs, CDCs	Would require utility support of virtual net metering

Objective 6: Improve access to affordable clean energy for residents and small organizations

Indicators:

- % Renewables in Community Choice Aggregation
- Renewable use by neighborhood
- Energy bill as a proportion of income

Actions	Key Implementers, Collaborators & Advisors	Notes
<p>a Continue to incorporate renewable energy projects into community choice aggregations</p>	<p>City of Cleveland, NEO cities and utilities</p>	<p>Existing aggregation offers 100% renewable energy; Low cost financing for medium and grid scale renewables, tax abatements, grant programs; Explore use of natural gas aggregations to support local renewable projects for business</p>
<p>b Create community-wide Clean Energy Equity plan to support low-income residents and small organizations to purchase renewable energy</p>	<p>City of Cleveland, Cuyahoga County, small orgs</p>	<p>Explore community wide renewable goal, similar to Boston and Cully Community energy plan or California Clean Energy Equity Plan; Encourage utilities and energy supply companies to offer affordable 100% renewable energy to residents and businesses, with emphasis on local production where possible</p>

Objective 7: Reduce commercial & industrial emissions with advanced technologies

Indicators:

- Total Industrial Emissions
- Emissions per output or GDP
- Advanced technology installations

Actions	Key Implementers, Collaborators & Advisors	Notes
a Identify opportunities for facilities to repurpose waste to energy without burdening residents	City Cleveland (Econ Dev, Sustainability), waste to energy companies, large food and organic waste companies	Fuel switching being employed; Example waste to energy companies include Vadxx, Quasar, and RES POLYFLOW
b Pursue more cogeneration (or combined heat and power)	Cleveland Thermal, MCCO, large manufacturers, MUSH Sector	Include chilled water, trigeneration; can be incorporated into microgrids; MUSH sector – municipalities, universities, school boards and hospitals/health care

Objective 8: Establish an offshore wind industry in Northeast Ohio

Indicators:

- Workforce employed and economic impact
- Cost of energy from industry
- % power from offshore wind

Actions	Key Implementers, Collaborators & Advisors	Notes
a Complete Icebreaker Wind Pilot Project	LEEDCo, Fred.Olsen, CPP, County, large institutions	Sell remaining power, receive permits, and begin construction
b Develop strategy to establish an offshore wind industry in NEO	LEEDCo, workforce development orgs	Develop strategy to attract wind-related businesses and create workforce programming; Exploring wind industry cluster potential; Great Lakes Wind Network as resource; Connect residents to jobs

Objective 9: Use advanced technology to build a cleaner, safer, smarter city

Indicators:

- \$ invested in smart grid infrastructure
- Energy reliability/grid resilience
- Energy demand on microgrid
- # smart meters by sector

Actions	Key Implementers, Collaborators & Advisors	Notes
a Complete Cleveland microgrid feasibility study and begin implementation	Cuyahoga County, City of Cleveland, CPP, Cleveland Foundation, CSU, CWRU, Cleveland Thermal – Corix	Move quickly to the design/ engineering phase with the active utility involvement
b Expand the use of smart grid technologies, including smart meters	Utilities	Support citizen capacity to collect data with advanced technologies, and better understand energy use; At a minimum ensure advanced meters are available for all communities
c Complete LED Streetlight project and expand on smart technology capabilities	CPP, City of Cleveland (Public Safety, Traffic and Engineering, etc.)	Rollout of LED Streetlight implementation to begin in 2018/19; includes about 65,000 streetlights; Also a strong connection to Energy Efficiency and Green Building Focus Area

Objective 10: Support clean energy policy

Indicators:

- Utility renewable energy generation %
- % renewables purchased as policy
- Clean energy incentives used

Actions	Key Implementers, Collaborators & Advisors	Notes
a Help strengthen statewide standards to ensure support for energy efficiency and renewable energy	Clean energy stakeholders, elected officials	Along with efficiency, wind and solar, continue to advance stable sources of low-emission power such as hydropower, bio-energy, geothermal, solar thermal and renewable natural gas; Strong clean energy policy benefits all” (including low-income).
b Meet Cleveland Public Power renewable energy targets, using local renewable energy generation where feasible	CPP	on track to meet 25% renewable goal by 2025
c Explore county-wide incentives for clean energy development	County, Utilities	Explore tax, subsidies, rebates

Focus Area: Sustainable Transportation

Goals:

- Reduce the share of vehicles on the road whose only occupant is the driver from 70% to 65% by 2022, 55% by 2030
- Make progress in meeting Vision Zero Goal of eliminating transportation fatalities
- Northeast Ohio achieves air quality attainment by 2021

Objective 11: Drive cleaner, more efficient vehicles

Indicators:

- NOACA fleet data, \$ Private/Public clean vehicle investments YOY
- # alternative fuel vehicles (e.g. Insurify data)
- Alternative fuel vehicle infrastructure

Actions	Key Implementers, Collaborators & Advisors	Notes
a Develop citywide and regional strategy to expand electric vehicle fleets and charging infrastructure	NOACA, Clean Fuels Ohio, City of Cleveland, Cuyahoga County, large fleet operators, charging station vendors	Support broad deployment of EV charging in both public and private parking lots; Build off Drive Electric Ohio plan to develop NEO-specific EV infrastructure plan to apply for at least \$10-15 million available from State of Ohio as part of VW settlement; EV buses becoming more mainstream
b Examine potential for clean vehicle car sharing, and how best to provide community support	NOACA, City of Cleveland, Cuyahoga County, select CDCs	Possibly incorporate into EV infrastructure planning efforts; REV has started EV car share locally; Explore partnerships with ride sharing companies
c Develop plan for compressed natural gas (CNG) and propane fueling infrastructure	NOACA, RTA, City of Cleveland, fleet operators	CNG utilized more for large fleets of high use vehicles (e.g. RTA, waste pickup, etc.)
d Implement approaches for promoting and enforcing anti-idling	Department of Health-Air Quality, CMSD, NOACA, Public Safety, CWRU Prevention Research Center, businesses w/large fleets	Align with CDPH Air Quality Division effort at CMSD and Rec Centers; Use research on health burdens on vulnerable populations from transit-related emissions.

Objective 12: Build transportation systems that prioritize safety for all

Indicators:

- Pedestrian/Bike Fatalities/year
- Vision Zero Stats for all modes of travel
- City of Cleveland's Complete and Green Streets report

Actions	Key Implementers, Collaborators & Advisors	Notes
a Launch and implement City Vision Zero initiative	City of Cleveland, Ohio Dept of Transportation, NOACA	City Council partnering with administration on a Vision Zero initiative; Maintenance of bicycle and pedestrian facilities, including street sweeping and a snow removal plan; Look at German Model of Mobility Hubs; Consider speed limits on city streets to support safe travel of all road users on our roadways (especially around schools, parks, rec centers, and other community hubs); data-based corridor analysis
b Continue to implement Safe Routes to School	CMSD, City of Cleveland Planning and Public Safety, B&H	Focus on crashes of within a 2 mile radius of all CMSD schools
c Conduct walk audits to ensure streets are free from any hazards and ADA accessible	City of Cleveland (Department of Aging, Engineering and Construction), Planning, CDCs	Support the Age Friendly Cleveland Plan; Explore transportation alternatives such as ride share options, buddy rides, transportation hubs with age friendly options incorporated; Increase safe and direct access to transit stops

d

Implement complete and green streets policy throughout the city

City of Cleveland (MOCAP and Planning)

Implement safety countermeasures, including bump outs, speed reduction, and road diets, along the most dangerous corridors; Consider amending the Complete and Green Streets Ordinance to a) legally prioritize road users in the following order: pedestrians, cyclists, transit riders, automobile drivers, and freight drivers; b) strengthen the policy with additional elements, including performance metrics and a focus on network connectivity; and c) require a formal oversight committee tasked with ensuring implementation of the ordinance; coordinate with County; Finalize streetscape design guidelines

Objective 13: Increase use of public transit through regional collaboration

Indicators:

- RTA Ridership
- RTA funding
- Access to jobs and critical public services via transit

Actions	Key Implementers, Collaborators & Advisors	Notes
<div data-bbox="113 1413 173 1472">a</div> Advocate for more public transit funding, especially at the state level	RTA, NOACA, City and County, workforce organizations, the FFEF and the Workforce board to study job hubs	Support transit infrastructure and service levels; Explore regional initiative focused on improving access to jobs and critical public services via public transit
<div data-bbox="113 1650 173 1709">b</div> Establish employer partnerships to support sustainable commuting options	RTA, large employers, City of Cleveland, NOACA	Expand use of RTA Commuter Advantage Program - employers to offer discounted or free RTA passes to employees); Expand use of Gohio Commute and Commuter Choice Challenge among businesses; Refer to Columbus case study of downtown employers subsidizing employee transit passes

<p>c Increasingly apply technology to improve public transit safety, fuel efficiency and user experience</p>	<p>RTA</p>	<p>see CLE Smart City Challenge application, see examples from Columbus, Pittsburgh, Kansas City, etc.; Google/Waze</p>
<p>d Prioritize Transit Oriented Development through investment and regulation</p>	<p>City Planning, NOACA, RTA</p>	<p>Maximizes the amount of residential, business and leisure space within walking distance of public transit. Make available affordable and accessible housing development; Explore “location-efficient mortgages” that provide special financing benefits for qualified projects to promote low and moderate-income rental housing near Regional Transportation District (RTD) transit stations</p>
<p>e Invest in infrastructure that supports bus operations and more comfortable and welcoming bus stop environments</p>	<p>RTA, CDCs, City of Cleveland</p>	<p>Trash and recycling bins co-located; Improve transit waiting environment through initiatives such as “Bus Stop Moves” initiative</p>
<p>f Increase public transit options for older adults that are easily accessible, affordable, and safe</p>	<p>City of Cleveland (Department of Aging), RTA</p>	<p>e.g. RTA’s Vanpool program</p>

Objective 14: Make Cleveland a premier cycling city

Indicators:

- Miles of bike lanes by type (disaggregate by neighborhood)
- NOACA bike counts
- Bike crash/safety data
- Ridership data from Bike Cleveland, City, etc.

Actions	Key Implementers, Collaborators & Advisors	Notes
a Expand bike share and incorporate dockless and e-bikes, while improving access to everyone	UH Bikes Advisory Committee, City and County, Bike Cleveland	Likely implement expansion in 2019 with NOACA funding, and based on RFI/RFP issued through County
b Update City Bikeway Master Plan, with emphasis on equity, safety, and connectivity	City of Cleveland	Continue focus on equity and more protected bike infrastructure; Bikeway Master Plan adopted by City Council; Incorporate Bikeable analysis led by Rails to Trails and Bike Cleveland; Waterproof print copy & digitize NOACA's regional bike map and match this map up with Google Maps and Waze
c Continue to install and maintain at least 10 miles of bike infrastructure per year, including transformative projects	City of Cleveland, NOACA	Complete transformative projects, such as towpath, Lorain Avenue Cycle Track, Midway pilot, Opportunity Corridor, and Red Line Greenway
d Partner to support Safe Biking Classes for more residents	City of Cleveland (Department of Aging), Bike CLE, Ohio City Bike Co-op	Increase bike use and safety among older adults
e Apply for Silver Level Bike Friendly Community Status	City of Cleveland, Bike CLE	City likely apply in 2020; Cleveland a top 20 city (out of 480 cities) as ranked by People for Bikes
f Increase number of Bicycle Friendly Businesses certified and recognized	Bike CLE and other bike orgs, City of Cleveland (Sustainability), Universities	There's about 5 certified in Cleveland; Bike Friendly Universities

Objective 15: Continue to green Cleveland's ports

Indicators:

- Green Marine Performance Program certifications
- Elimination of BUI
- NOACA freight mode shift

Actions	Key Implementers, Collaborators & Advisors	Notes
a Improve Cleveland-Cuyahoga County Port Authority Green Marine certification	Port of Cleveland, OSU Stone Lab, Ohio Sea Grant	Expanded use of our Port for less carbon intensive waterborne trade; more work on reduced waste, spill prevention, and general environmental prevention; Landlord port status and use of green leases for tenants; Consider new World Ports Climate/Sustainability Program
b Continue to green Cleveland's airports	City of Cleveland (Department of Port Control)	Build off leadership in solar, electric vehicles, green roofs, stream rehab, and energy efficiency; Moving toward green leases

Focus Area:
Clean Water and Green Space

Goals:

- 100% of residents live within a 10-minute walk of a safe and clean park
- Delist Cuyahoga River as Area of Concern by 2025
- Install stormwater control measures on all development projects
- 30% Tree Canopy by 2040 and 50,000 trees planted by 2020

Objective 16: Update land use policy to foster health, equity, and sustainability

Indicators:

- Walk Score
- Businesses & residents within pedestrian overlay district
- New development meeting parking maximum

Actions	Key Implementers, Collaborators & Advisors	Notes
<div>a</div> Develop a plan for vacant land reuse to identify potential future uses	City of Cleveland Planning	Comprehensive City-Wide Master Plan development
<div>b</div> Innovate and expand city zoning practices that balance the social, economic and environmental needs of our community	City of Cleveland (Planning, ED), Board of Zoning Appeals	Consider reductions or elimination of parking minimums/establishment of parking maximums, minimum green space requirements, etc.; Urban form overlay pilot; Continue review of the City’s zoning code to encourage sustainable development and form-based codes (Comprehensive Citywide Plan).
<div>c</div> Establish best practices for integrating sustainability and climate action into neighborhood planning	Cleveland Neighborhood Progress, City of Cleveland (Sust, Planning), CDCs, MetroHealth	Use of EcoDistricts protocol for neighborhood planning framework (e.g. Slavic Village, MetroHealth campus); Consider role of Cleveland Neighborhood Progress Strategic Investment neighborhoods



Create a “Green Infrastructure Guide” and incorporate into Planning Review

City of Cleveland (Sus. & Planning), NEORSD, Cuyahoga SWCD

Model after the Cleveland Solar Guide to support Green Infrastructure project approval process; Incorporate Opportunity Corridor On-Site Storm Water Strategy more broadly - include ways to publicize and educate around Title 4 regulations; Post-construction management-manual already available, but need guidance on building; Tree codes to protect from development and utilities; Reqs to increase tree canopy with new development where possible

Objective 17: Reduce dumping through vacant land reuse and education

Indicators:

- # of reports to Env Crimes Taskforce
- Vacant lots sold/leased
- # city vacant lots converted to Green Infrastructure, tree, parks, gardens, trails annually
- # side yard expansions

Actions



Increase tree plantings and parks on vacant land

Key Implementers, Collaborators & Advisors

Cuyahoga County Environmental Crimes Task Force, City of Cleveland, Cleveland Tree Coalition, Land banks, community development corps, Cleveland Neighborhood Progress

Notes

Build off pilot urban reforestation project on vacant land, led by Western Reserve Land Conservancy; Focus on tree planting, parks, and green infrastructure; Consider funding and long-term maintenance with resident engagement to promote climate resilience; Incorporate into city-wide master plan update; Trees as a “living fence”; Education on other anti-dumping strategies including bollards, pocket parks, barriers, etc.

b	Create a city database and map of prior land uses or central inventory of land contaminants	City of Cleveland	Consolidate Phase 1 Assessment city-wide “Mega Clearance”; Look at lead and PCBs
c	Update the demolition standard to support sustainable land use	Land banks, City of Cleveland	Demo specs already exist-enforcement considerations

Objective 18: Implement the Cleveland Tree Plan to grow and maintain a healthy urban forest

Indicators:

- Tree Canopy % overall and by neighborhood
- # trees planted
- People employed in urban forestry

Actions	Key Implementers, Collaborators & Advisors	Notes
a Develop a governance structure for the Cleveland Tree Coalition, including a way to fund trees	Cleveland Tree Coalition	Potentially focus on private tree plantings, neighborhood-level tree planning, and outreach and education of the Cleveland Tree Coalition
b Explore the integration of trees into the Stormwater Credit Program to increase trees and manage stormwater	Northeast Ohio Regional Sewer District	Build into water equity and Cleveland Tree Coalition work to reduce costs of trees for residents

c Develop and update City policies to keep trees healthy	City of Cleveland and City Council, Cleveland Tree Coalition, Holden Forests and Gardens	Create ordinance to protect trees and create tree protection fund to receive penalties; do comprehensive review of tree-related ordinances and update
d Develop neighborhood tree goals and increase opportunities for residents to learn about and take care of trees	CDCs, Cleveland Tree Coalition, Cleveland Neighborhood Progress	Cuyahoga SWCD continue to offer workshops, fact sheets and planting opportunities
e Update county-wide urban tree canopy assessment and the City's detailed tree inventory	City of Cleveland, Cuyahoga County, Cleveland Metroparks, Cleveland Tree Coalition	Countywide Urban Tree Canopy assessment to be updated every 5-10 years; City to conduct detailed public tree inventory

Objective 19: Improve access to clean and safe public parks

Indicators:

- City Park quality assessment
- TPL park score
- % of Clevelanders within a 10-minute walk of a park

Actions	Key Implementers, Collaborators & Advisors	Notes
a Implement recommendations from the City's Parks Assessment	Trust for Public Land, City of Cleveland (Capital Projects, Planning), CMHA, Metroparks, Land Banks	Make assessment public; City of Cleveland investing about \$5 million per year in rehabbing parks, focusing first on those most in need; consider accessibility and biodiversity as part of ongoing assessments and recommendations

b Build public-private partnerships that add, improve, and connect more trails to parks	Trust for Public Land, City of Cleveland (Capital Projects, Planning), Cleveland Metropolitan Housing Authority, Metroparks, Land Banks, West Creek Conservancy, Western Reserve Land Conservancy	Cuyahoga Greenways Plan to be complete in 2018; implement TIGER grant; Update Cleveland Bikeway Master Plan
c Create plan to have 100% of residents living within a 10-minute walk of a park	Trust for Public Land, City of Cleveland (Capital Projects, Planning, Sus., Public Works), Cleveland Metropolitan Housing Authority, Metroparks, big campuses	

Objective 20: Scale up stormwater management

Indicators:

- Land designated as green infrastructure
- # gallons collected by green infrastructure

Actions	Key Implementers, Collaborators & Advisors	Notes
a Leverage resources to support neighborhood green infrastructure grants and ongoing maintenance	NEORSD, CDCs, OEPA, City of Cleveland, Trust for Public Land, Western Reserve Land Conservancy	Improve upon ability to develop and implement projects in a timely manner (CDCs often able to navigate permit approval process); Build off of NEORSD communication capacity and partnerships for marketing, outreach and education (e.g. use of Climate Smart Cities Tool at neighborhood level); Leverage Community Cost Share program include maintenance costs for at least a year (HUD does not allow funds to be used to cut grass on GI projects unless the land is zoned residential)

<p>b Enhance the rain barrel program, focusing on outreach, effective installation, and maintenance</p>	<p>City of Cleveland, NEORSD, Cuyahoga SWCD</p>	<p>Cuyahoga SWCD promotes and offers rain barrel “make it, take it” workshops in addition to City rain barrel program</p>
<p>c Strategically use NEORSD’s funding programs to improve stormwater management</p>	<p>City of Cleveland, NEORSD, Central Lake Erie Basin Collaborative</p>	<p>Member Community Infrastructure Program (MCIP) focused on water quality, while Community Cost Share is made available for City priorities in stormwater management</p>
<p>d Expand green roof installations through outreach and incentives including the Stormwater Credit Fee</p>	<p>NEORSD, City of Cleveland</p>	<p>There’s a lot of opportunity to scale up green roof development in Cleveland, building off good examples in the region</p>
<p>e Finish and begin to implement Stormwater Master Plans for Cuyahoga County and incorporate into development requirements</p>	<p>NEORSD</p>	<p>Address flooding and erosion; Support implementation of the Ohio Lake Erie Commission’s Protection & Restoration Plan (e.g., priority development and conservation areas); Cuyahoga SWCD review stormwater pollution prevention plans and inspect active construction sites to ensure erosion and sediment control; Install stormwater control measures on all development projects; Capture runoff to keep stormwater discharge same, or reduce stormwater, as pre-development</p>
<p>f Complete green infrastructure workforce demand study</p>	<p>Cleveland Neighborhood Progress, NEORSD</p>	<p>Pilot green infrastructure certification maintenance program</p>

Objective 21: Improve water quality and conservation

Indicators:

- River index of wellbeing
- # water advisories/CSOs/gallons untreated wastewater annually
- # beach advisories annually
- #BUIs delisted

Actions	Key Implementers, Collaborators & Advisors	Notes
a Make progress in restoring the Cuyahoga River by removing Beneficial Use Impairments	Cuyahoga River Restoration, NEORSD, Cuyahoga SWCD, AOC members, Port Authority	Through removal of beneficial use impairments (BUIs) and stream restoration (first 2 BUIs removed in May 2018); Maintain best practices for waterfront cleanup (debris, trash, animal waste)
b Develop and implement recommendations of the “Water Equity” taskforce	NEORSD, Cleveland Water, Water Equity Taskforce	US Water Alliance defines water equity as: Ensuring that all people have access to safe, reliable, and affordable water and wastewater systems; NEORSD spearheading effort to focus on water equity as part of national effort
c Finalize analysis of leaks in drinking water distribution system, implement findings	Cleveland Water Department	Continue to leverage AMR meters for notifying building owners of potential leaks; Empower customers to stop leaks/identify inefficiencies
d Promote water conservation in public and private buildings	Cleveland 2030 District, U.S. Green Building Council Northeast Ohio	WaterSense, a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA), is both a label for water-efficient products and a resource for helping you save water; Educate developers on Greywater systems and using stormwater for irrigation
e Establish Cleveland as a hub of water innovation and business development	Cleveland Water Alliance	Erie Hack as a resource; Complete value of water study, including job potential of clean water economy

Focus Area: More Local Food, Less Waste

Goals:

- Achieve landfill diversion rate of at least 50% by 2030 for both residential and commercial waste in Cuyahoga County with an interim goal of 35% by 2022. Achieve residential landfill diversion rate of 30% by 2030 for City of Cleveland.
- Reduce the number of residents with low access to healthy food from 61% in 2015 to 40% in 2022

Objective 22: Encourage waste reduction and diversion in homes and businesses

Indicators:

- Diversion Rate—separate residential and commercial
- # of zero/reduced waste events

Actions	Key Implementers, Collaborators & Advisors	Notes
a Develop comprehensive plan for waste reduction and management in Cleveland	County Solid Waste District, City of Cleveland	Build off County Solid Waste Plan; Market identification for different recyclables; Waste collection fees, etc.; Include route optimization for waste trucks; Consider pay as you throw policies; Explore incentives, campaigns and policy to limit shipping waste from growing online delivery markets
b Increase outreach and education to residents on proper recycling	County Solid Waste District, City of Cleveland (Div. of Waste, Sustainability), TV20, Hispanic Alliance	Support growth of the Master Recyclers Ambassador Program and consider access to the program; Ensure outreach materials are translated and make materials less text heavy and more visual
c Support recycling in multifamily residences	County Solid Waste District, CDCs, City Council	Apartment complexes do not currently receive City's blue bins, so dependent on landlord; Consider protections for tenants from cost increases from landlords (policies)

d	Encourage more organizations to move toward zero waste	County Solid Waste District, COSE, Magnet, WireNet, State of Ohio, City of Cleveland	Increasing use of Ohio Material's Marketplace; Connected to Plastic Bag fee legislation introduce by County Council; Educate businesses about environmentally preferable purchasing and zero waste events; Assist in development of circular economy in the region and partner with manufacturers; Highlight efforts through a Green Biz recognition program locally
e	Make zero and reduced waste events standard for large community events	Zero Waste NEO, compost haulers, City of Cleveland	Continue zero waste event workshops and work to incorporate into policy; Zero Waste NEO to identify community organizations to target; Starting with all city sponsored events; Rustbelt Riders and Full-Cycle as resources for organics
f	Explore expansion of leaf pickup citywide	City of Cleveland (Public Works)	Leaf pickup in high generation areas was re-started in 2017

Objective 23: Reduce food waste and hunger

Indicators:

- Food rescued/diverted
- Food waste commercially composted

Actions	Key Implementers, Collaborators & Advisors	Notes
a	Increase availability of composting options for residents and businesses	Ohio EPA, County SWD, compost haulers, City of Cleveland Public Works
		Support Ohio EPA increasing composting area from 300 to 500 Sq Ft; Determine municipal barriers to providing residential/curbside composting while growing voluntary compost programs and outreach efforts; Rust Belt Riders have begun residential composting pickup; Work w/CCSWD Master Recyclers and Climate Ambassadors; Other compost haulers include Full-Cycle, Barnes Nursery, and Rid All

b	Expand networks for food rescue efforts to connect to hunger services	County SWD, Food bank, City of Cleveland (Econ Dev), CSU, Stone Soup, County Board of Health, Hunger Network of Greater Cleveland	Consider Cleveland State University research through Brian Mikelbank; Continue West Side Market efforts; Grow the Stone Soup model; Education on Bill Emerson Good Samaritan Act addressing donor concerns around liability
c	Support business network of sourcing, procuring, distributing and marketing cosmetically imperfect produce	County Solid Waste District, CDCs, City Council	Apartment complexes do not currently receive City's blue bins, so dependent on landlord; Consider protections for tenants from cost increases from landlords (policies)
d	Join campaigns for standardizing food labeling dates and educating the public on donor liability and food thrift	City of Cleveland (Public Health, Sust), Food Policy Coalition, faith community, Food Bank, food companies	Explore Feeding the 5000 and other campaigns to encourage food thrift at home and across the community

Objective 24: Enhance the local food system and resident access to high quality, affordable, healthy food

Indicators:

- SNAP incentives data at farmers' markets and grocery pilots
- #CSAs, subscriptions, and locations
- Food hub sales and their dollar outputs to farms/dollars divested from conventional supply chain

Actions	Key Implementers, Collaborators & Advisors	Notes
a Understand the feasibility of a frozen food facility to aggregate and distribute local food and extend availability of local produce beyond the growing season	NOACA, Sustainability; Frozen food manufacturers; TeamNEO, NEOTEC, County/City Development Boards; Logistics firms (e.g., InterChez, D&S Distribution Inc.); ODOD	Continue implementation of Sustainable Foods Business Roadmap starting with multimodal/ frozen food facility (Growth enabled by increased regional export of frozen foods in several industries may support 500-600 new jobs)

<p>b Update policies to expand institutional purchasing of local and climate-friendly foods throughout the City</p>	<p>CMUSD, hospitals, universities, Farm Fare, Cleveland Food Hub, Cleveland-Cuyahoga County Food Policy Coalition</p>	<p>Update sustainable bid discount ordinance; Partner with Friends of the Earth for workshoping and promotion of their guide for Municipalities; Consider role in Healthy Cleveland Plan standards update; Look to institutions w/o managed food (contracts) like CMUSD, MetroHealth; Refer to “Cultivate Michigan” as a best practice statewide</p>
<p>c Expand high quality retail development and healthy food accessibility through a county-wide strategy</p>	<p>City of Cleveland, Cuyahoga County, RTA, Cleveland-Cuyahoga County Food Policy Coalition</p>	<p>Engagement, policy and funding are needed in this space; Determine claw back policies for public funds to support healthy retail across multiple formats (coops, bodegas and corner stores, FMs, small grocers, etc.); Specifically City & County Planning, Economic Development, Sustainability, Public Health, and Council; Explore systemic issues between healthy food access and public transit, etc.</p>
<p>d Develop and support a resident entrepreneurial network to provide fresh, healthy and local foods</p>	<p>Cleveland Food Hub, CCLK, ioby, JumpStart, FARE, OSU/Central State Extension-Cuyahoga, Urban League of Cleveland</p>	<p>Spotlight Cleveland resident enterprises such as Fruitilicious</p>

Focus Area: Cross-Cutting Priorities

Objective 25: Engage Residents to Advance Equity in Climate Action

Indicators:

- # of institutions that utilize a racial equity tool in their decision-making processes
- CAP workshop survey data (engagement continuum)
- SC2019 engagement data
- CCAF funding & grant making

Actions	Key Implementers, Collaborators & Advisors	Notes
a Establish the Climate Action Plan Racial Equity Tool as a resource for other initiatives	Cleveland Climate Action Advisory Committee, Cleveland Neighborhood Progress	Such as policy/legislative review at City and County level, funding decisions (foundations), and land use/planning and transportation decisions (Board of Zoning Appeals)
b Integrate sustainability and climate action into K-12 curriculum, programming and operations	CMSD & PTOs, private and charter schools	CMSD submitted letter of interest in an electric school bus pilot program to the Ohio Environmental Protection Agency. Partial funding for this program is coming from a portion of VW settlement
c Establish a Cleveland Smart City collaborative that improves quality of life through technology and prioritizes investments for the most vulnerable	City of Cleveland, CWRU, CSU, Cuyahoga County, RTA, NOACA, Neighborhood Connections	Connect to CWRU/CSU Internet of Things (IoT) collaborative; See Objectives related to energy, as well as transportation, to align actions to smart technology

d	Develop and expand partnerships for education, training, and outreach efforts for residents around climate action and sustainability	City of Cleveland, Cleveland Neighborhood Progress, CDCs, Neighborhood Connections	Build off of CAP update neighborhood workshops w/ Cleveland Foundation Fellow; Ramp up for 50th anniversary; Use both events and efforts to inform engagement platform after Sustainable Cleveland 2019 ends
e	Make the Cleveland Climate Action Fund financially sustainable and increase impact	CCAF Advisory Board	Prioritize project investments in vulnerable communities; Base on Cleveland Climate Action Fund governance strategy

Objective 26: Advance Green Jobs through Workforce Development

Indicators:

Green Jobs Analysis

Actions	Key Implementers, Collaborators & Advisors	Notes
a	Update green jobs analysis at least every 1-2 years and incorporate a workforce development assessment	City of Cleveland, Cuyahoga County
b	Develop working group with workforce development and training organizations to integrate green jobs into existing work	City of Cleveland (Sust, Workforce Dev)
		First analysis completed as part of CAP update; Continue to develop research and institutional partners to fine-tune analysis approach going forward
		This working group would: develop tracking method for the above analysis, develop a strategy to engage employers around sharing annual updates, testing trends, and localizing regional/state/national data (GCP, MAGNET, Presidents Council, Construction Associations) and share information collected by employers, as well as determining credentials and soft skills needed; Work with engagement organizations to determine resident interest in certain green job industries; Engagement strategy could be focus groups, annual event, survey, one-on-one meetings, etc.

<div>c</div> <p>Build a green jobs awareness and recruitment strategy with community organizers and workforce organizations</p>	<p>NLI, GCC, Neighborhood Connections, Towards Employment, employers identified in green jobs analysis</p>	<p>Community organizers often get left out of the workforce conversation but are important based on the injustice experienced by those they are organizing. They have to be a part of the early conversations, funded to do organizing, and are engaged to understand the present state of the workforce system (with a green jobs context). Their job is not to recruit but to help raise awareness about the opportunities, why it's important. That way when recruitment begins to happen, residents know what they are being recruited for.</p>
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Objective 27: Support and recognize local businesses taking climate action

Indicators:

- Corporate Environmental and Social Governance Analysis [indicators]
- # of recognized green businesses (3rd party certified or participating in local program)
- # businesses reporting on Diversity & Inclusion; # of businesses with Climate Goals

Actions	Key Implementers, Collaborators & Advisors	Notes
<div>a</div> <p>Engage business and institutional leaders to increase the number of NEO organizations reporting on race, equity, and inclusion</p>	<p>GCP</p>	<p>Build on existing reporting structure</p>

<p>b Develop, promote, and implement a local green business recognition program</p>	<p>City of Cleveland (Sust, ED OEO), CSU, CWRU, COSE, GCP, Magnet</p>	<p>Goal is to have a significant number of organizations recognized by June 2019, the 50th anniversary of the infamous Cuyahoga River burning; Also encourage corporate and institutional leaders to set carbon reduction goals; Consider role this could play in scaling social enterprise network in Cleveland; Connect to City bid discounts; Explore standard RFP language to incorporate responsible supply-chain requirements, increased transparency up/down the supply chain, etc.</p>
<p>c Research climate action financing tools and develop approach for Cuyahoga County</p>	<p>Cuyahoga County, foundations, financial institutions, City of Cleveland</p>	<p>Research other models and identify staff to lead; Incorporate findings from Cleveland Climate Action Fund governance strategy and development consulting</p>
<p>d Create comprehensive resource for Cleveland's manufacturers focused on energy and waste</p>	<p>City of Cleveland, WIRE-Net, Greater Cleveland Partnership, MAGNET, CWRU, Cuyahoga County</p>	<p>Work with MAGNET, Greater Cleveland Partnership, and WireNet to collaborate with small-mid size manufacturers and larger industrials who actively control their industrial emissions per output; Facilitate an industrial leadership council/committee to advance most promising advanced technologies with a goal of implementing by 2021</p>

Objective 28: Improve resilience to climate change and other impacts

Indicators:

■ Climate and Social Vulnerability Assessment [indicators]

Actions	Key Implementers, Collaborators & Advisors	Notes
a Develop plan to continue and extend work under the Climate Resilience and Urban Opportunity Initiative, including the role of neighborhood climate ambassadors	Cleveland Neighborhood Progress, CUDC, University of Buffalo, CDCs, City of Cleveland, Climate Ambassadors, Resilient Cleveland Core Team	Kresge Foundation funded first three years of implementation (2016-2018), focused on four neighborhoods; Update Climate and Social Vulnerability Assessment, incorporating more neighborhood level information (e.g., AC data by GoSustainable)
b Complete City Resilience Index	City of Cleveland, University of Buffalo, Resilient Cleveland Core Team	Developed as part of the 100 Resilient Cities Initiative, this index would be a good complement to the Climate and Social Vulnerability Assessment
c Incorporate Climate and Vulnerability Assessment into city and county plans	City of Cleveland, Cuyahoga County	Consider workshop for City and County staff in Planning, Sustainability, Health, Aging, Capital Improvement, Emergency Operations, and Land Banks to incorporate into their plans as well as other plans (e.g. Cleveland Tree Plan)
d Use an inventory of houses with air conditioning for a more responsive network of cooling and heating centers and draft guidelines for network members	City of Cleveland, Cuyahoga County	Consider workshop for City and County staff in Planning, Sustainability, Health, Aging, Capital Improvement, Emergency Operations, and Land Banks to incorporate into their plans as well as other plans (e.g. Cleveland Tree Plan)
e Develop air quality mapping program at neighborhood level, focusing on community hubs	City of Cleveland (Public Health), NOACA, CDCs	Community hubs can be schools, libraries, rec centers, places of worship, etc.; Also part of neighborhood resilience hubs initiative