December 17, 2024

CLIMATE ACTION & ADAPTATION PLAN DRAFT UPDATE

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(she/her)

Agenda

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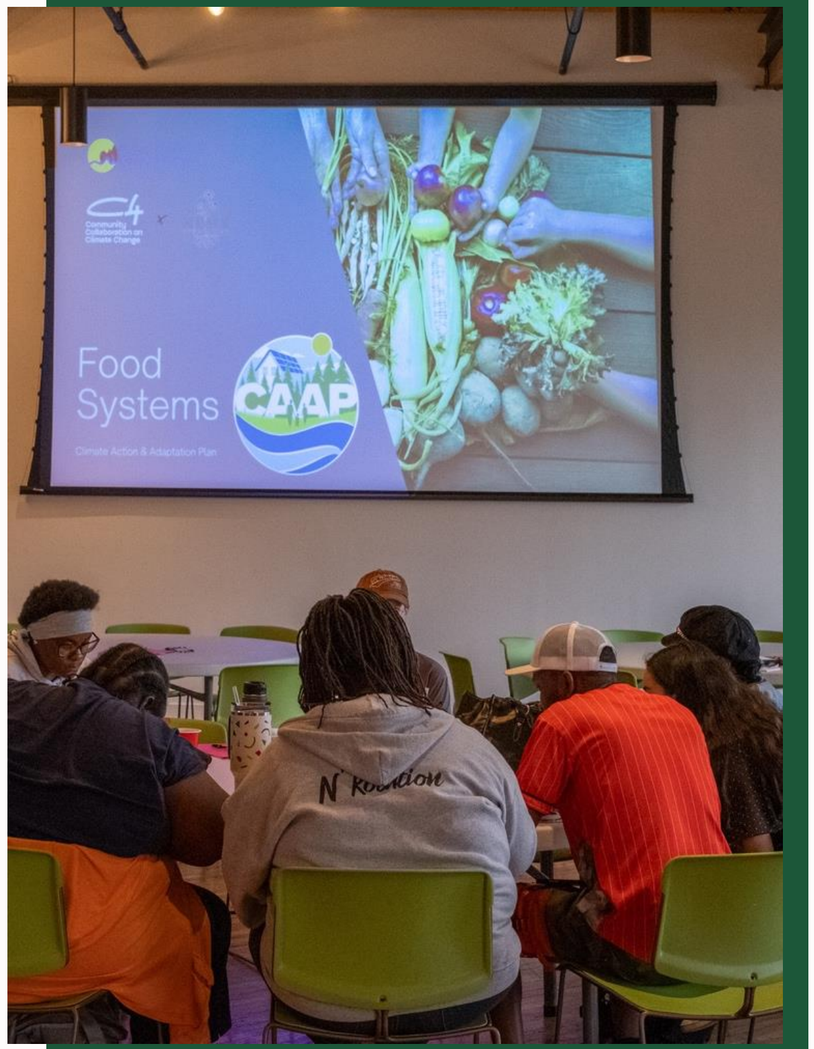


Health and Environment

The health of all people and the environment are advocated for, protected and enhanced.

Objective 1:

Reduce carbon emissions, support climate adaptation and increase climate resiliency.

Strategies

1. Increase the knowledge, awareness and understanding of climate change among staff, partners, community stakeholders and residents
2. Enhance collaboration with partners on strategies and actions to address climate change
3. Reduce carbon/greenhouse gas emissions from City operations (buildings, utilities and fleet) by 85% by 2030 (compared to 2008) and achieve carbon neutrality by 2040
4. Create and support programs and policies to reduce carbon/ greenhouse gas emissions from the building, transportation and other key sectors throughout the community
5. Create and begin implementing a Climate Action and Adaptation Plan (CAAP) in partnership with the community that works in parallel with and compliments the new Community Master Plan

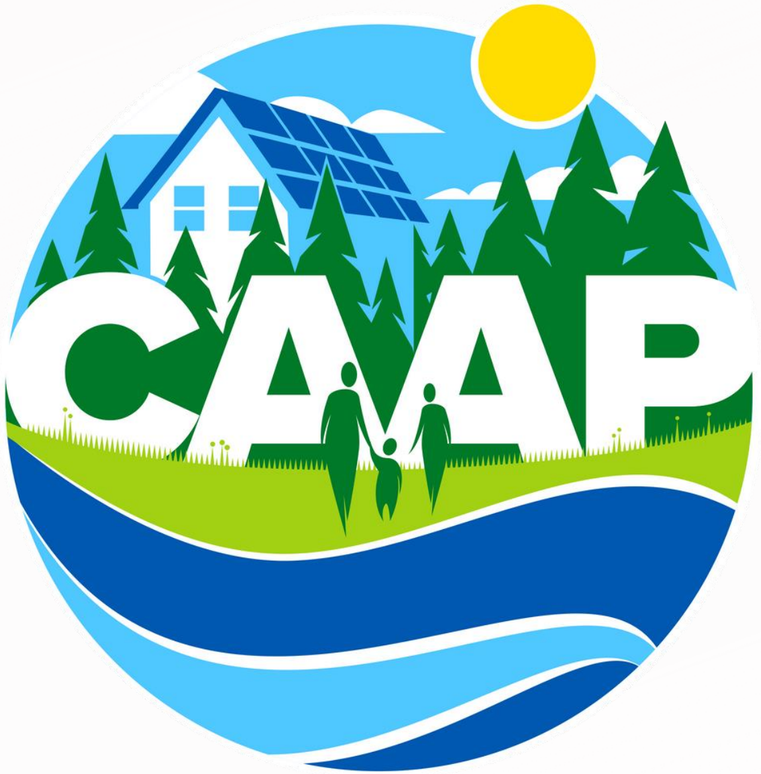
CITY OF GRAND RAPIDS

What is a Climate Action & Adaptation Plan?

A Climate Action and Adaptation Plan (CAAP) is a roadmap for how the community of Grand Rapids will reduce greenhouse gas emissions and prepare for the impacts of climate change on public health, ecosystems, infrastructure and public spaces.

The CAAP is being co-created in partnership with the community stakeholders and based on resident feedback to meet our community-wide science-based targets.

- 62.8% per capita GHG reduction community-wide by 2030 from 2019 emissions, and
- 100% per capita GHG reduction by 2050 from 2019 emissions.



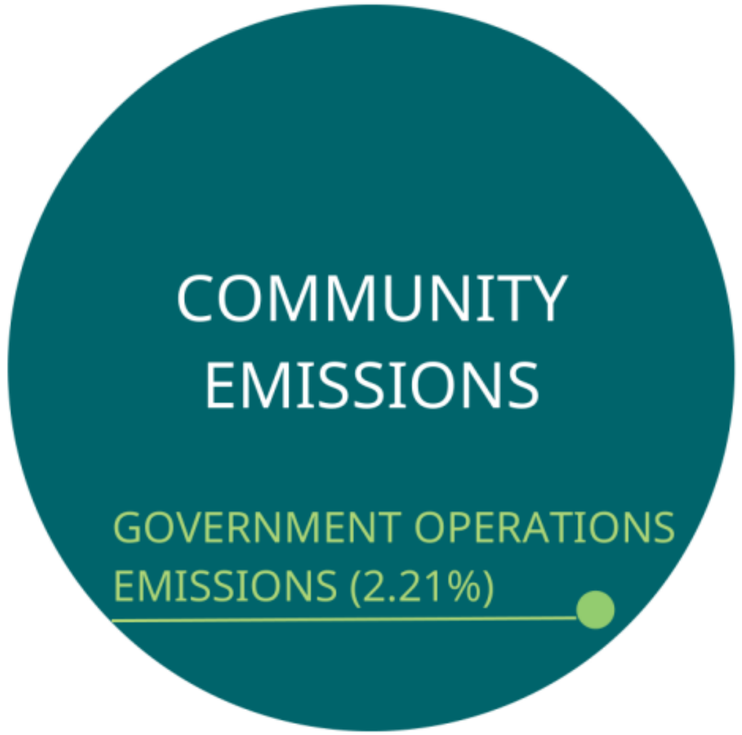
A Community-Wide Plan

The City of Grand Rapids is committed to addressing the climate crisis by working towards the goals, strategies and actions outlined within this plan to achieve the adopted community-wide science-based targets.

However, achieving Grand Rapids community-wide science-based targets will only be made possible with community buy-in and proceeding action.

The City will act as a leader for this work by:

- Modeling emissions reductions in municipal facilities and fleet
- Implement actions under local control (ex. land use)
- Bring community stakeholders to the table and to move innovative solutions and community progress
- Advocate for legislative and regulatory changes



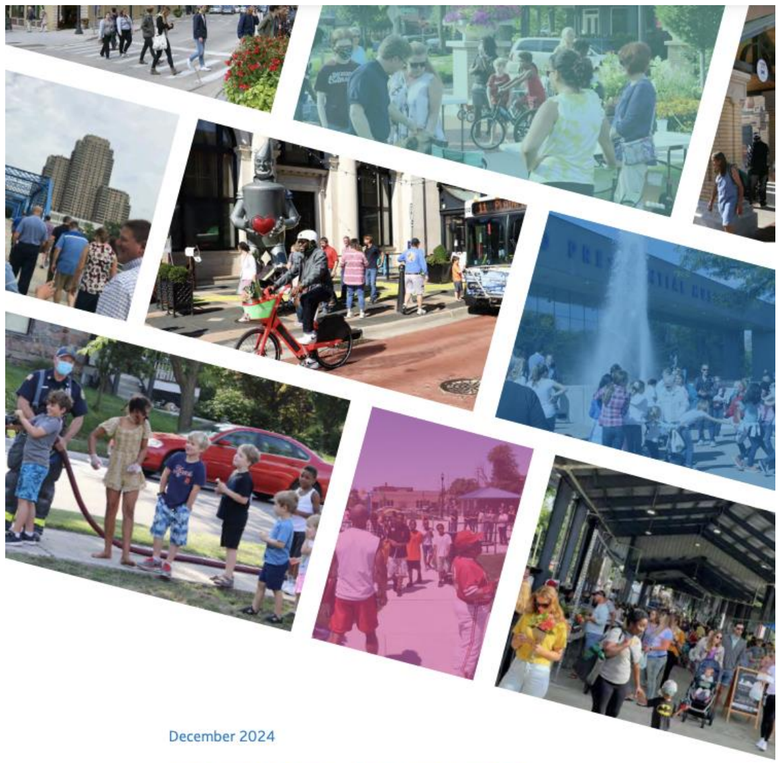
97.79% of emissions outside of direct City control

Community Master Plan Intersection

The CAAP works in collaboration with the approved Community Master Plan following its bold vision for the city's growth and development for the next 20 years by addressing land use concepts related to equity, housing, sustainability, and economic development.

The CAAP includes 52 strategies and actions that correspond directly with Community Master Plan recommendations across the chapters of Great Neighborhoods, Vital Business Districts, A Strong Economy and Balanced Mobility.

The CAAP incorporates CMP engagement feedback into the plan.



Process Timeline

2022 → 2023 → 2024 → 2025

Pre-planning

Coordinating with community stakeholders to build relationships and establish future engagement opportunities

Pre-Planning
- Community Stakeholder Meetings
- Coordinating with CMP

Visioning

Understanding community's vision and priorities. Conducting GHG Inventory to inform the plan.

Round 1
- Launch Party
- Online Survey
- Formation of Climate Advisory Teams

Analysis

Organize chapter specific feedback sessions and conducting the Climate Risk & Vulnerability Assessment

Round 2
- Community Workshops
- Online Survey
- Focus Groups
- One-on-one interviews

Plan Development

Incorporating public feedback and drafting the plan. Public engagement on draft

Round 3 (UPCOMING)
- Community Workshops
- Online Survey

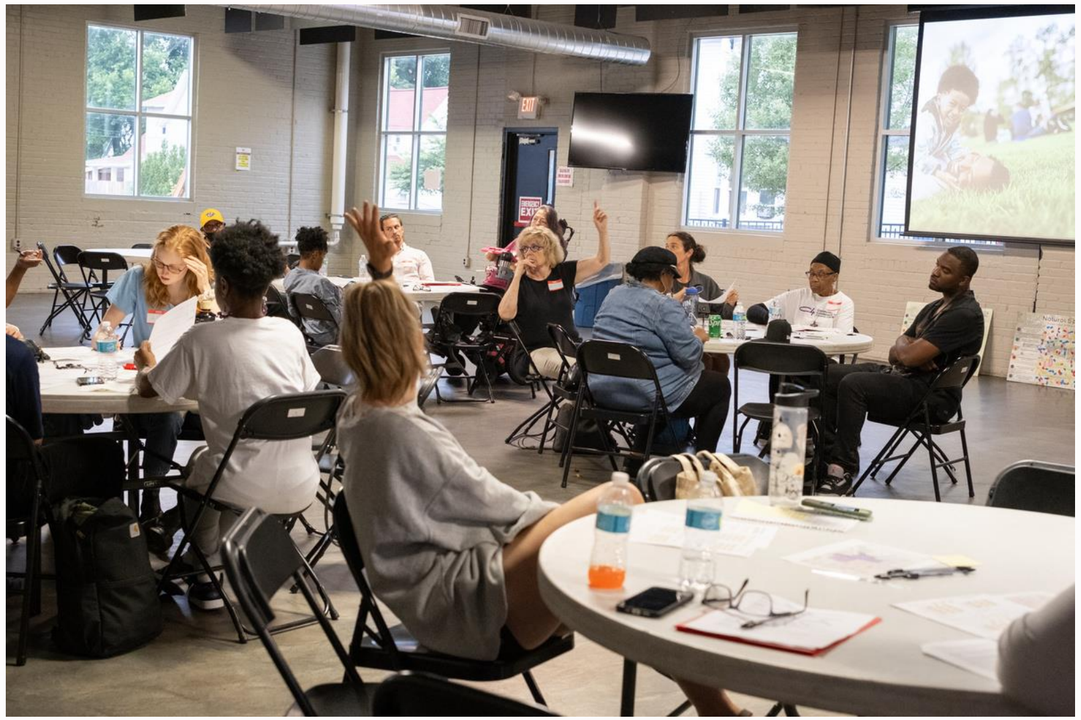
Implementation

Analyze GHG reduction potential for actions and develop an implementation strategy with community stakeholders

Next Steps
- One-on-one meetings with community stakeholders

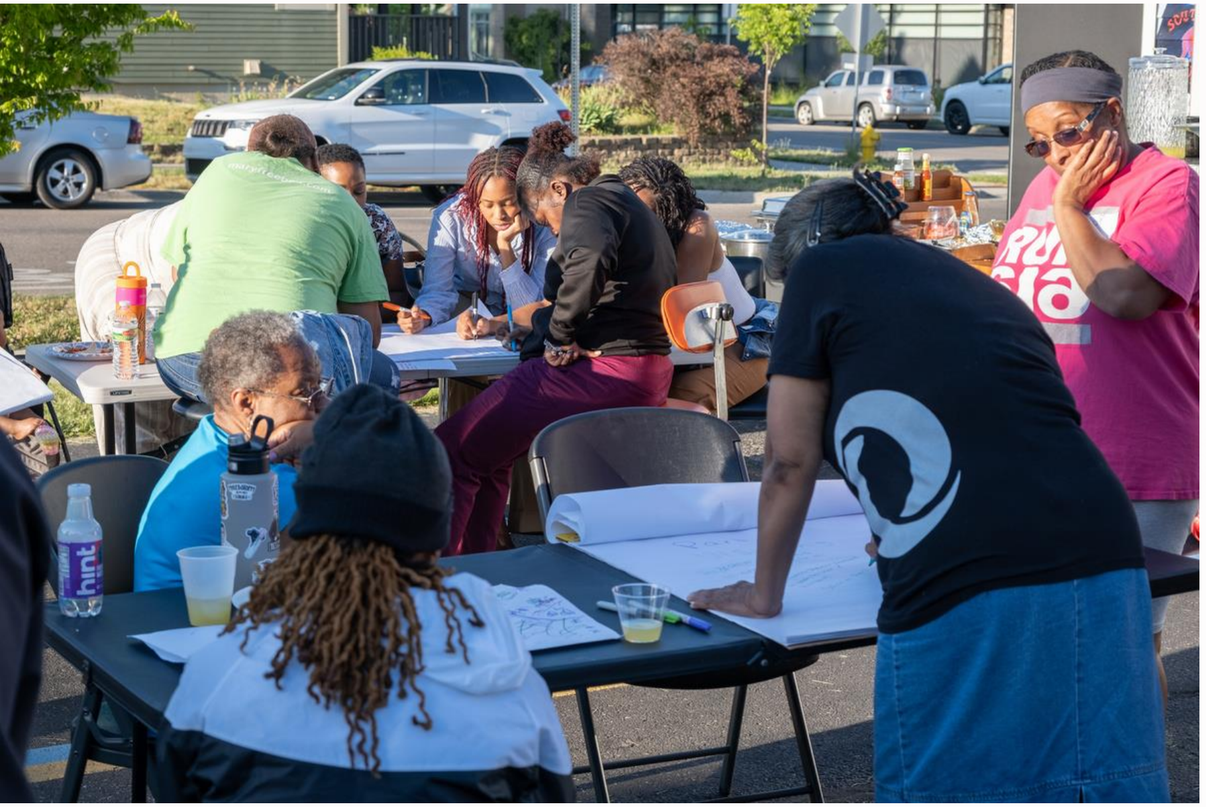
Public Engagement

Engagement Overview



- Three rounds of engagement
- Collaboration with local community-based organizations
- Moved from visioning (brainstorming) to responsive (providing feedback and direction)
- Partnered with CMP process and engagement

Engagement Techniques



- In-person workshops
- Virtual meetings
- Community events
- 1:1 interviews
- Focus group feedback (Spanish language, unhoused, youth)
- Online surveys
- Climate advisory teams

Plan Framework Review

CAAP Chapters

Chapter subjects were defined through the GHG Inventory's identification of largest emitting sectors and community's priorities from the CAAP Survey.

1.Energy Systems

Addressing the generation, distribution and consumption of fossil fuel-based energy.

2. Residential Homes

Increasing the affordability, energy efficiency, health, climate resilience and access to renewable energy of housing.

3. Buildings & Industry

Reducing GHG emissions from buildings and industrial processes.

4. Transportation & Vital Streets

Reducing reliance on fossil fuel powered single-occupancy vehicle usage and increase access to electric vehicles.

5. Nature Based Solutions

Increase sequestration and increase nature's resilience to climate change.

6. Food Systems

Reducing waste and increasing access to local food and growing opportunities.

Plan Framework Review

Structure

Goals (16)

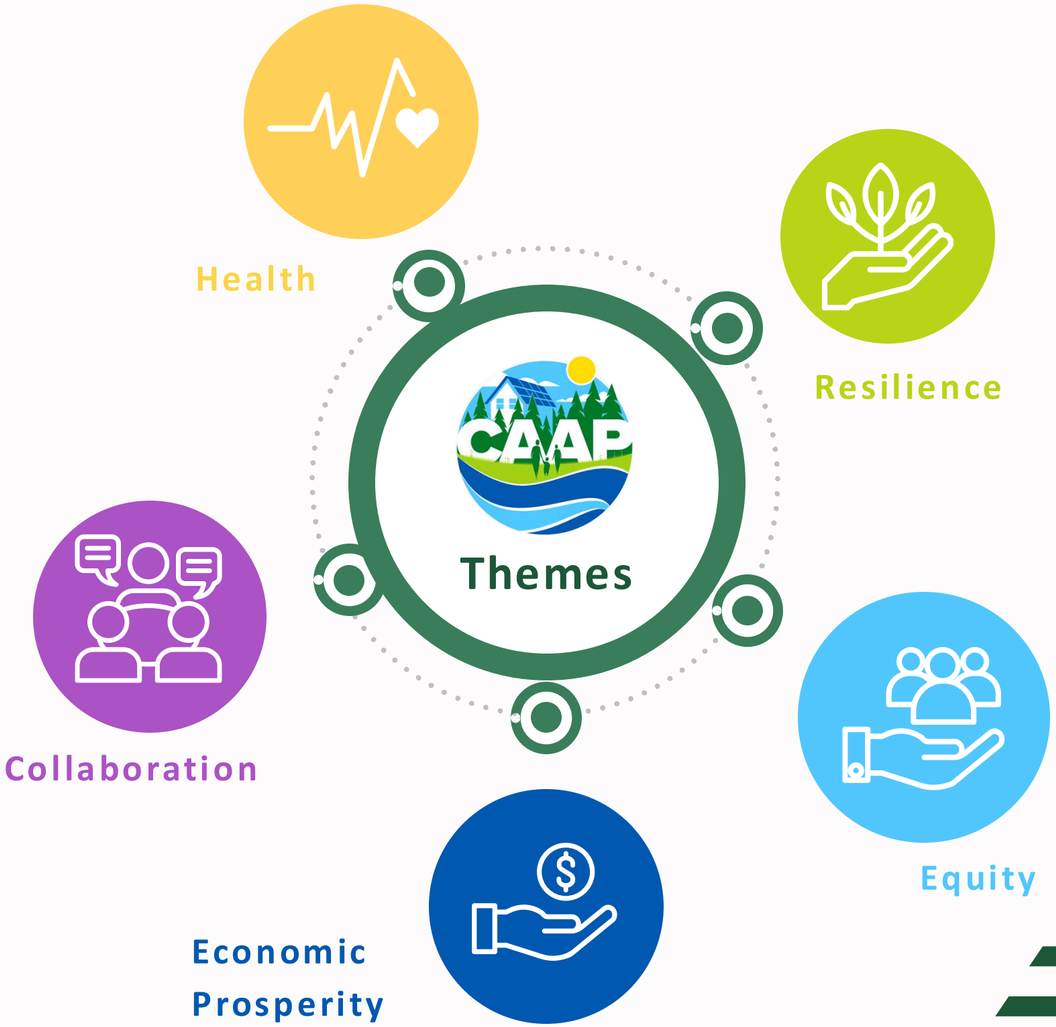
Desired outcomes in specific sectors to achieve our community science-based targets and reduce the impacts of climate change.

Strategies (29)

Major initiatives, or services that must be completed in order to progress towards the goals.

Actions (195)

The programs, activities, and projects that will push forward the strategies.



Energy Systems Potential Goals

Goal: 80% electricity grid decarbonization by 2030
Goal: Increase the reliability and resilience of energy systems

Challenges & Barriers

- **The State of Michigan is the primary entity authorized to regulate electrical and natural gas energy generation and distribution through laws enacted by the Michigan Legislature and regulations passed by the Michigan Public Service Commission (MPSC).**
- **Consumers Energy is the utility that provides nearly all electricity to users within the city of Grand Rapids and electricity grid decarbonization depends on CE's ability to meet their voluntary emissions reduction and renewable energy goal of net zero carbon emissions by 2040.**
- **Outdated legislation limits community solar and microgrid opportunities**
- **Increased electrification efforts could affect grid capacity**

Energy Systems Potential Strategies

Goal: 80% electricity grid decarbonization by 2030
Goal: Increase the reliability and resilience of energy systems

Strategy 1

Increase residents', businesses' and organizations' access to and understanding of energy systems (electricity, natural gas, steam, waste to energy and renewable natural gas).

Strategy 2

Increase residents', businesses' and organizations' access to and participation in decision making for energy systems.

Strategy 3

Help decrease the cost of renewable energy and/or other innovative, low to no emission technologies.

Strategy 4

Support the installation of solar or other low to no emissions technology on-site.

Strategy 5

Support the purchase of renewable and carbon free energy, with an emphasis on locally generated energy.

Strategy 6

Nurture a clean energy economy.

Strategy 7

Improve the resilience of the energy system.

Energy Systems Action Examples

Goal: 80% electricity grid decarbonization by 2030
Goal: Increase the reliability and resilience of energy systems

S1 Action 1

Identify existing education resources and organizations in community and create a single education platform on all energy systems.

S2 Action 3

Increase the community's participation in rule making, rate cases (affordable energy, distributed generation) and other MPSC decisions (ex. IRP, VGP, etc.).

S3 Action 3

Create a "solarize program" to educate on solar options, leverage solar tax credits and offer group-buy discounts to reduce the price of purchasing solar

S4 Action 1

Update the City's zoning ordinance to remove zoning barriers in all districts for on-site solar.

S5 Action 2

Educate interested parties on opportunities to purchase renewable energy credits or carbon offsets as well as other renewable energy contracting options like virtual power purchase agreements (vPPA)

S6 Action 1

Work collaboratively with stakeholders, such as trade unions, schools, universities, community-based organizations and utilities to form a Green Career Task Force to pair career development and contractor training programs with training curriculums on green technology and trades with a focus on serving vulnerable communities.

S7 Action 8

Identify and support active community hubs to transition to resilience hubs prioritizing NOFs.

Residential Homes Potential Goals

Goal: 5% of all existing residential buildings reduce energy 20% by 2030
Goal: All new residential buildings and 1% of existing buildings will meet IECC 2018
Goal: All new residential buildings and 11% of existing buildings are electrified per year
Goal: Improve the health and resilience of housing to the impacts of climate change.

Challenges & Barriers

- **The State of Michigan adopts building and energy codes.**
- **The State of Michigan is still using the 2015 IECC codes.**
- **Both building and energy codes prohibit local municipalities from requiring more energy efficiency or other high performing energy systems or designs.**
- **Existing building constructed under past building and energy code often did not require insulation or high efficiency energy systems**
- **Additional housing is needed to meet housing gap (Housing Needs Assessment)**
- **Lack of contractors available for home repair and weatherization programs**
- **Staff are concerned electrification code requirements for existing housing could cause increased construction & labor costs**

Residential Homes Potential Strategies

Goal: 5% of all existing residential buildings reduce energy 20% by 2030
Goal: All new residential buildings and 1% of existing buildings will meet IECC 2018
Goal: All new residential buildings and 11% of existing buildings are electrified per year
Goal: Improve the health and resilience of housing to the impacts of climate change.

Strategy 1

Increase energy efficiency of housing

Strategy 2

Support the transition to clean energy use in housing

Strategy 3

Increase community capacity for, awareness of, and access to home improvement resources

Strategy 4

Improve resident access to information and resources to make their homes healthy and climate resilient

Strategy 5

Expand the amount and variety of housing types across all price points to address the rental and for-sale housing gaps in Grand Rapids, which could be exacerbated by potential climate migration

Residential Homes Action Examples

Goal: 5% of all existing residential buildings reduce energy 20% by 2030
Goal: All new residential buildings and 1% of existing buildings will meet IECC 2018
Goal: All new residential buildings and 11% of existing buildings are electrified per year
Goal: Improve the health and resilience of housing to the impacts of climate change.

S1 Action 2

Continue and expand the E.H.Zero home renovation pilot program which seeks to create a local model of how best to braid resources to update existing homes to be as efficient as possible

S2 Action 2

Pursue funding to improve roof conditions of homes to prepare for on-site solar

S3 Action 2

Create on online resource hub to help residents find housing related resources such as local contractors, coaching services, programs related to housing, and information on their rights

S4 Action 2

Increase resident access to stormwater management measures for their homes (such as gutters, downspouts, etc.) to help prevent flooding.

S5 Action 1

Support programs that expand housing diversity based on income and housing types.

- Coordinate programs to encourage more mixed-income projects.
- Build creative incentive tools and programs to promote a variety of housing choices.
- Partner with development community to identify the most impactful tools and current barriers

Buildings & Industry Potential Goals

Goal: 10% of all existing commercial buildings reduce energy 20% per year

Goal: 5% of existing commercial buildings are electrified per year

Goal: Reduce GHG emissions from industrial processes (further analysis required to establish target)

Challenges & Barriers

- **Similarly to residential barrier the State of Michigan adopts building and energy codes and is using the 2015 IECC codes with local control prohibited**
- **Existing building constructed under past building and energy code often did not require insulation or high efficiency energy systems**
- **GR 2030 District offers a significant amount of education, resources and tools to the building sector, there is minimal enrollment or compliance with data reporting**
- **Energy management in buildings requires increased capacity and resources**
- **Efficiency projects may require longer timeframe for return on investment than businesses usually consider or can finance**

Buildings & Industry Potential Strategies

Goal: 10% of all existing commercial buildings reduce energy 20% per year

Goal: 5% of existing commercial buildings are electrified per year

Goal: Reduce GHG emissions from industrial processes (further analysis required to establish target)

Strategy 1

Increase community's awareness, understanding of, and capacity to address, how much energy buildings use and the emissions they generate.

Strategy 2

Reduce the amount of energy used and the emissions generated by existing buildings.

Strategy 3

Ensure that new construction buildings are high-performing, low to zero-emissions, and climate resilient.

Strategy 4

Reduce the amount of energy used and the emissions created from industrial processes and increase resilience of energy-intensive processes.

Buildings & Industry Action Examples

Goal: 10% of all existing commercial buildings reduce energy 20% per year

Goal: 5% of existing commercial buildings are electrified per year

Goal: Reduce GHG emissions from industrial processes (further analysis required to establish target)

S1 Action 2

Enhance access to and use of actual data (energy use and cost and emissions) in building development, design, construction and operation decisions.

S2 Action 2

Support the creation of a weatherization and efficiency program for commercial, industrial and multi-family residential buildings to help reduce energy bills.

S3 Action 1

Continue to advocate for stronger and more frequently updated state building and energy codes that emphasize energy efficiency, electrification and renewable energy, increasing resources to enforce the code, and allow local municipalities to go beyond the code.

S4 Action 3

Partner with Vicinity Energy to continue to implement efficiency projects and pursue electrification of steam generation and the sourcing of renewable energy as a strategy to reduce process emissions as well as help their downtown customers achieve building related emissions reductions.

Transportation Potential Goals

Goal: 10% vehicle miles traveled reduction by 2030
Goal: 4.5% annual growth of on-road electric vehicle adoption
Goal: 22.5% of vehicle miles traveled is with electric vehicles by 2030

Challenges & Barriers

- **Cultural attitudes toward car dependency**
- **Public transit owned and operated by The Rapid**
- **The Rapid faces a paradoxical challenge of increasing reliability and frequency to increase ridership, with increased ridership needed to fund improvements**
- **City's land use historically prioritizes vehicles over pedestrians and cyclists**
- **Lack of affordability and accessibility to electric vehicle options**
- **The federal government regulates vehicular fuel efficiency and the generation of vehicular fuels (ethanol content, etc.)**

Transportation Potential Strategies

Goal: 10% vehicle miles traveled reduction by 2030
Goal: 4.5% annual growth of on-road electric vehicle adoption
Goal: 22.5% of vehicle miles traveled is with electric vehicles by 2030

Strategy 1

Educate residents for all transportation options and environmental impacts

Strategy 2

Expand and Protect Pedestrian Network and Amenities

Strategy 3

Build Out a Safe Bicycle Network by Expanding Separated/Protected Bicycle Lanes and Increasing Access to Bicycles

Strategy 4

Support Regional Projects that Promote Transit

Strategy 5

Focus Land Use Practices on More Accessible, Dense and Less Car Centric Neighborhoods

Strategy 6

Promote accessibility to electric and low to no emission vehicles including adding EV Infrastructure for Community and Individuals

Strategy 7

Electrify City Fleet and Provide Support to Other Fleets within Municipal Boundaries

Transportation Action Examples

Goal: 10% vehicle miles traveled reduction by 2030
Goal: 4.5% annual growth of on-road electric vehicle adoption
Goal: 22.5% of vehicle miles traveled is with electric vehicles by 2030

S1 Action 3

Develop and promote new equity and affordability programs for shared micromobility and the Rapid

S2 Action 1

Develop a Pedestrian Action Plan

S3 Action 3

Pilot a bicycle and e-bike voucher program

S4 Action 1

Unify communications throughout Kent County and the surrounding municipalities to educate and promote existing mobility options and future improvements

S5 Action 8

Require a plan to encourage people to use modes of transportation other than driving alone when large developments are proposed within identified nodes

S6 Action 3

Provide education on how to access incentives for first-time EV buyers

S7 Action 1

Pilot a City e-bike fleet with charging infrastructure and maintenance

Nature Based Solutions Potential Goals

Goal: Achieve 40% tree canopy goal to increase carbon sequestration

Goal: Ensure that both people and the natural environment are healthy and resilient to the impacts of climate change

Challenges & Barriers

- **More opportunity to increase tree coverage is with private property owners**
- **Outside of parks and forestry there is no clear mandate on ecosystem management, which must compete with other priorities for limited funding and creates capacity and resource gaps**
- **Maintenance will become a high priority as climate change and extreme weather events weaken local trees causing urban tree canopy losses, and harm private and public landscaping and green spaces**

Nature Based Solutions Potential Strategies

Goal: Achieve 40% tree canopy goal to increase carbon sequestration

Goal: Ensure that both people and the natural environment are healthy and resilient to the impacts of climate change

Strategy 1

Continue and expand tree planting, preservation and maintenance programs, partnerships and incentives.

Strategy 2

Foster positive health benefits by increasing access, and ensuring an equitable distribution, of public green space

Strategy 3

Continue to prioritize green infrastructure development

Strategy 4

Encourage sustainable, regenerative land management practices.

Nature Based Solutions Action Examples

Goal: Achieve 40% tree canopy goal to increase carbon sequestration

Goal: Ensure that both people and the natural environment are healthy and resilient to the impacts of climate change

S1 Action 1

Prioritize neighborhoods with a low tree equity score, low-canopy neighborhoods and neighborhoods with populations at higher risk of adverse outcomes of urban heat island effects and outdoor air pollution, for tree plantings and habitat restoration.

S2 Action 2

Increase walking access to green space by improving sidewalks and trail connections to regional and local parks and greenways, prioritizing the City's neighborhoods of focus.

S3 Action 2

Promote the retrofit of conventionally landscaped areas to create green infrastructure or landscapes that regenerate ecosystem function (ex. native plants) via Vital Streets, Park Improvements, and through private development opportunities.

S4 Action 1

Pursue an update to the zoning ordinance to include native and native-adapted plantings by adopting a Landscape Manual to capture evolving best practices and provide guidance for all projects subject to landscaping standards.

Food Systems Potential Goals

Goal: Reduce waste related emissions by reducing food scraps sent to landfills, reducing solid waste and encouraging sustainable consumption

Goal: Improve the health and resilience of food system to the impacts of climate change.

Challenges & Barriers

- **Most of Grand Rapids' food supply is not grown within city limits, Kent County is a large producer of fruit and other items and interest in local food growing, but food supply remains vulnerable to supply chain disruptions locally and in other areas and states, as was evident in disruptions and shortages during the COVID-19 pandemic.**
- **Composting infrastructure is limited and with few options for businesses and community members to compost.**
- **Kent County's Waste to Energy facility will sunset in 2039 due to 2023 MI energy legislation**

Food Systems Potential Strategies

Goal: Reduce waste related emissions by reducing food scraps sent to landfills, reducing solid waste and encouraging sustainable consumption

Goal: Improve the health and resilience of food system to the impacts of climate change.

Strategy 1

Strengthen the local food economy to address food access and supply chain issues prioritizing access to neighborhoods of focus.

Strategy 2

Reduce the amount of food and solid waste generated by public areas, businesses, and homes.

Strategy 3

Increase access to composting services and provide resources for residential composting.

Strategy 4

Create and promote opportunities for people to learn about, grow, prepare, and share their own food

Strategy 5

Build and design our community to improve accessibility to healthy foods throughout the community, but with a focus on low income and disadvantaged neighborhoods

Food Systems Action Examples

Goal: Reduce waste related emissions by reducing food scraps sent to landfills, reducing solid waste and encouraging sustainable consumption

Goal: Improve the health and resilience of food system to the impacts of climate change.

S1 Action 5

Use city properties to support the promotion of local foods (e.g., seed banks at public libraries, farmers markets and food tree sales or giveaways in city parks).

S2 Action 9

Pursue a pilot program to utilize food scrap, mulch, and wood waste in the creation of compost soil and bio-char.

S3 Action 4

Increase public access to composting services through:

- Establishing neighborhood compost sites and drop-off locations through partnerships with local organizations and community gardens.
- Establishing an education campaign to teach how to compost and prevent contamination
- Explore the practicality of a curbside composting program and incentives for composting.

S4 Action 1

Pursue recommendations of the Urban Agriculture Committee to reduce barriers to backyard livestock and edible trees and shrubs

S5 Action 1

Consider zoning ordinance amendments that permit urban agriculture as a primary, accessory, or special/ conditional use in all zoning districts to support urban agricultural practices on properties across the city

Noteable Policy Considerations

RH 1.4

Truth in Sale/Lease Policy

Assess the feasibility of a truth-in-sale/-lease policy that shows potential buyers and tenants how efficient a house is by disclosing 12 months of utility data or having an energy score

BI 2.1

Energy/Emissions Reduction Policy

Continue to evaluate building energy or emissions reduction policy opportunities by identifying best practices that reduce undue burden for reporting and compliance through financing options and capacity support (example policies include benchmarking and transparency requirements, building performance standards, tune-up or audit requirements, retrocommissioning requirements, etc.)

Noteable Policy Considerations

BI 3.4

Update Municipal Building LEED Policy

Update a City policy requiring the evaluation and prioritization of high-performing, low to zero-emissions, and climate resilient new construction and major renovation for City-owned projects and encourage other GR-based businesses and organizations to adopt a similar policy.

FS 1.4

Municipal Local Food Procurement Policy

Adopt local food purchasing preferences into city procurement policies using best practices from the Good Food Purchasing Program, prioritizing the purchase of Kent County-grown foods.

FS 2.1

Municipal Food Waste Policy

Adopt municipal public procurement and food waste policies that reduce waste at city facilities and events

NEXT STEPS

Third Round Engagement

Dec 2024 - Feb 2025
Begin engagement with online survey. Community events will occur in January and February. Release RFP for GHG reduction projections

Review & Adopt

March 2025
Incorporate all engagement feedback into final plan. Present final draft to City Manager for potential recommendation to City Commission for potential adoption.

Implementation

Part 1: April - September 2025
Finalize GHG reduction potential for actions and develop an implementation strategy that includes funding costs, prioritization for strategies & actions, timeline, and identifying responsible parties with departments and community stakeholders. Create an online accountability hub.

THANK YOU

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