



City of Minneapolis

2023 Climate Equity Plan



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Letter from the Mayor

I'm proud to say, in the area of climate, the City of Minneapolis is charging ahead — pun intended. We have achieved 100% of our renewable energy goals for City-owned buildings already this year. We set a goal and we met it. That's important.

But our climate goals go beyond the walls of City-owned buildings. Our goals impact every corner of Minneapolis and every resident, business owner, and visitor. We plan to step up our efforts to hit 100% renewable electricity citywide by 2030. Realizing these ambitious goals will take significant action by the city and partnership with State, Federal, business and philanthropic leaders.

It is my pleasure to introduce the City's Climate Equity Plan. This plan is about people and protecting our beautiful city, the environment, and our well-being. This plan is about prioritizing low income and BIPOC communities first, and it was informed by hundreds of community members who took the time to share their expertise and experiences.

As we double down on our response to the climate emergency, this plan will guide our efforts. The strategies included here are both necessary and achievable and will lead to a more prosperous, resilient city. For example, we will fulfill our commitment under the Race to Zero campaign to do our part in the global effort to limit warming to 1.5°C/2.7°F and net-zero greenhouse gas emissions... helping us become carbon neutral by 2050.

You may be familiar with our previous Climate Action Plan — we have deliberately modified that to now be the Climate Equity Plan. We stand by our promise to address racial and economic disparities by prioritizing investments in the Minneapolis Green Zones, our designated environmental justice communities, so that the benefits of climate solutions are felt community wide. This ensures that people living in the Green Zones will be among the first to benefit from programs to insulate homes, plant more trees, install electric vehicle charging and other green infrastructure. We are also adding new green careers to help us get this work done.

And to make this plan a reality, I'm working with staff, community leaders and experts, and workers representatives to roll out a new Climate Legacy Initiative later this year to provide the framework needed to carry out the plan's strategies. The initiative will give the people in our city more walkable communities, cleaner air, and an environment for healthier living for generations to come.

I want to thank everyone who contributed to the Climate Equity Plan — from leaders and staff in our Health department to experts in our community. Thank you for taking the time to make this critical climate work a reality. I look forward to the road ahead and the work we will accomplish together — for our city and for our residents.



Land Acknowledgment & Plan Purpose

Land Acknowledgment

As we plan for our future, we are reminded that Minneapolis is situated on the homelands of the Dakota people. An area that is steeped in rich Indigenous history, it is home to Indigenous people from more than 30 different nations. As a city, we have a responsibility to care for the land on which we live and work and all its natural surroundings as the Indigenous peoples who came before us.

This stewardship is an integral part of our responsibility to care for our land, its people, and the environment.

Photo, previous page: Spring Skyline, NE 2022 by Lane Pelovsky, courtesy of Meet Minneapolis.

Plan Purpose

Climate change is one of the most urgent and complex challenges of our time. It affects everyone, but not equally. Some communities are more vulnerable and less resilient to the impacts of climate change, such as extreme heat, flooding, air pollution, and rising energy costs. These communities are often those that have historically faced racial, economic, and environmental injustices.

That is why the City of Minneapolis has developed a new Climate Equity Plan that aims to eliminate greenhouse gas pollution and create a more equitable and prosperous future for all. The plan focuses on actions that benefit diverse and low-income communities, especially in the Green Zones, where environmental justice is most needed. The plan also seeks to create green jobs, plant thousands of trees, lower utility bills, and make our streets more walkable.

The Climate Equity Plan is not just about the environment. It is about people. It is about how we can work together to create a more sustainable and just city for ourselves and future generations. This plan is based on input from residents, organizations, businesses, and experts who care about climate equity. It reflects our shared vision and values as a city.

The detailed plan follows and will guide city leadership and staff regarding actions needed to address buildings, energy, water, green spaces, transportation, food and circular economy. We invite you to join us in implementing the plan and to share your thoughts as we will update the plan regularly to better meet our climate goals. Together, we can reach across race, language, cultural differences to become a leader in climate equity and help people who live, work, and play in Minneapolis lead healthier, more fulfilling lives.

Plan Background & Processes

Climate Equity: Our Vision

This Climate Equity Plan puts people first in our race to save the planet. This plan will be the policy document that the City will follow for climate action.

The Plan includes new policies and practices where the city has direct control or influence to reduce carbon emissions to achieve accelerated goals. These measurable goals prioritize equitable decarbonization of our environment in the ways we build our buildings, move around the city, and how we procure and dispose of goods and food. Through the lenses of improving health, accessing wealth, and reducing climate change impact, the Plan is an educational resource as well as solutions-based tool to reduce pollution, conserve energy and restore the ecological balance of our community.

"I hope our community takes the issue of climate change seriously, where it matters most. I want my kids to be able to enjoy the Creek and lake like I used to growing up. To not fear for damaging winds or lightning strikes with increased strong storms."

— Survey respondent

"I hope to see more willingness and means for people to step up. People can make a difference but lack resources and broad support."

— Minneapolis High School Student

Vision

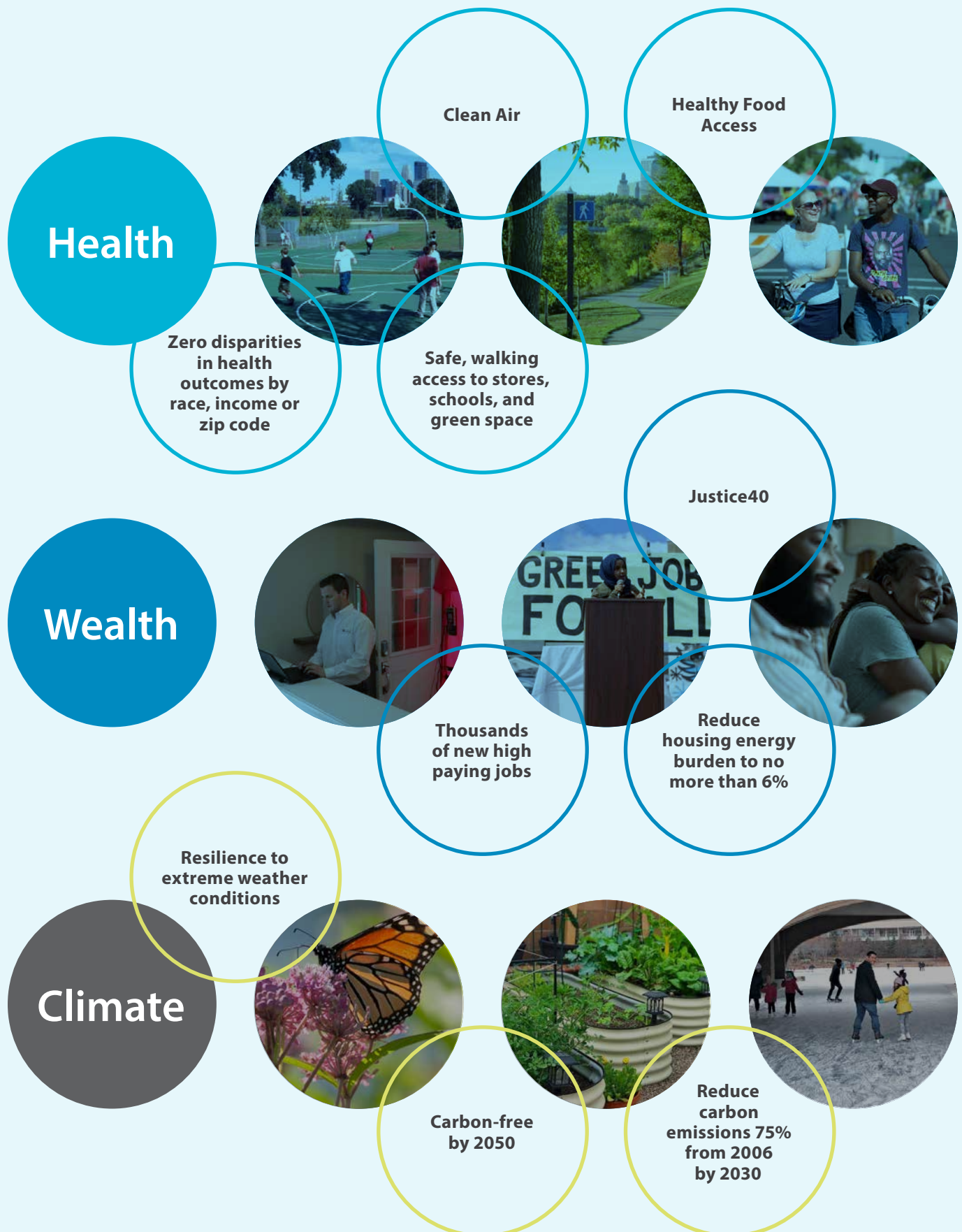
Achieve an environmentally just, resilient, low-carbon and equitable City.

Mission

We collaborate with residents to advance environmentally just policies that achieve deep carbon emission reductions, repair past environmental injustices perpetrated upon Indigenous, Black and Communities of Color, and create solutions for a sustainable, inclusive economy.

Climate Equity:

Climate equity ensures that all people share the benefits of climate protection efforts. Achieving equity means that all people—regardless of their race, color, gender, age, sexuality, national origin, ability, or income—live in safe and healthy communities.





Why Climate Equity Matters

Climate emergency

On December 21, 2021 the Minneapolis City Council and Mayor passed a resolution declaring a Climate Emergency. This resolution demands a massive-scale mobilization to halt, reverse, and address the consequences and causes of climate change.

The climate emergency resolution highlights how individuals and families on the front lines of climate change, living with income inequality and poverty, institutional racism, inequity on the basis of gender and sexual orientation, poor infrastructure, and lack of access to health care, housing, clean water, and food security are often in the closest proximity to environmental stressors or sources of pollution. This unequal impact of climate change is happening right here in Minneapolis.

Current climate science and real-world observations of climate change reveal the dangerous impacts it has on human populations and the environment. The National Climate and Health Assessment of the United States Global Change Research Program identified climate change as a significant threat to the health of the people of the United State, leading to increased:

- Temperature related deaths and illnesses
- Air quality impacts
- Extreme weather events
- Numbers of vector-borne diseases
- Waterborne illnesses
- Food safety, nutrition, and distribution complications
- Mental health and wellbeing concerns

Communities of color, indigenous communities, and low-income communities experience greater impacts because of the close proximity of the community to environmental hazards and stressors, including waste and pollution. These communities are often the first

exposed to the impacts of climate change and have the fewest resources to mitigate those impacts or to relocate, exacerbating preexisting challenges.

What we're seeing in Minneapolis

Many Minneapolis residents have identified these same concerns through our community engagement. In conversations and through an online survey, participants in our outreach identified the following ways that they are seeing impacts of climate change in Minneapolis:

- Hotter and wetter climate leading to disease
- More inconsistent, more extreme weather
- Smoke and transportation pollution negatively impacting health
- Dying trees
- Drought
- Higher energy costs

"...A response to the climate emergency necessitates the adoption of just community transition policies and processes available to all communities, which include policies and processes rooted in principles of racial equity, self-determination, and democracy, as well as the fundamental human right of all people to clean air and water, healthy food, adequate land, education, and shelter."

— Minneapolis Declaration of Climate Emergency Resolution (2019)

Photo, opposite page: Paddle boating on Lake of the Isles, Lane Pelovsky, courtesy Meet Minneapolis.

The Equity Principles of the Plan

Health

We imagine a Minneapolis that supports healthy living for all.

- Violence is reduced and kids can play outside.
- Residents and businesses are resilient to extreme weather and other threats.
- Communities thrive and folks feel safe walking to the grocery store, parks, work.
- Everyone has access to parks and green space that support native plants, insects, animals and birds as they regenerate soil and water.
- Community gardens provide local, healthy, and fresh food.
- Residents' homes and neighborhoods are healthy and safe.
- No disparities in health status and outcomes tied to air and water quality among residents based on socio-economic, demographic and zip codes.

"[We] want gardens back to grow fruit, vegetables, flowers, Thai chili peppers as there is no local place to buy these things and it's an expensive trip to St. Paul to shop."

— Lao Community Member

"Affordable housing, good jobs, neighbors that help one another, clean efficient transportation and accessible opportunities, and people excited about the future."

— Survey respondent

Wealth

We imagine a Minneapolis where wealth is built for all in a mindset of abundance—not scarcity—and past injustices are righted.

- All residents have the ability to invest in or own renewable electricity projects.
- Combined cost of heating, cooling, and powering a home should not exceed 6% of household income for all residents of Minneapolis.
- New good jobs are created that pay well and empower workers.
- Everyone can participate in and benefit from the new green economy.
- Wealth is built by and for Black, Indigenous, communities of color.
- Small businesses and the local economy thrive.
- Community is empowered through access to education and resources.



Climate

We imagine a Minneapolis where we live sustainably and respond resiliently to growing climate impacts.

- We live within our fair share of carbon emissions targets.
- Community is resilient, adaptive, and empowered in the face of climate disruption.
- Our grandchildren will experience snow.
- The Mississippi river water quality will improve as it continues to serve as a source of drinking water.
- Lakes freeze and cold winters kill pests.
- We have enough rain and predictable temperature to grow community gardens.
- Pollinators and animals thrive in healthy habitats that include native plants, and reduce stormwater runoff.

"Climate issues are coming quicker and faster."

— Little Earth Community Member

"I hope we continue to feel a strong sense of community, and that we feel more resilient and comfortable than we do now in this time of climate crisis. I want to know that all of my neighbors are invited into just transition and a safer, more stable climate future."

— Survey respondent

Photo of Webber Natural Swimming Pool by Minneapolis Parks and Recreation, courtesy of Meet Minneapolis. Additional photos courtesy Minneapolis Parks and Recreation.



Webber Natural Swimming Pool, built by the MPRB in 2015, is the first chlorine-free swimming pool in the country that uses filters and plants to clean the water, similar to a lake or stream. This type of innovation is an example of what all spaces in Minneapolis can strive to be: green, beautiful, resilient, supporting human wellness, and accessible to the whole city.

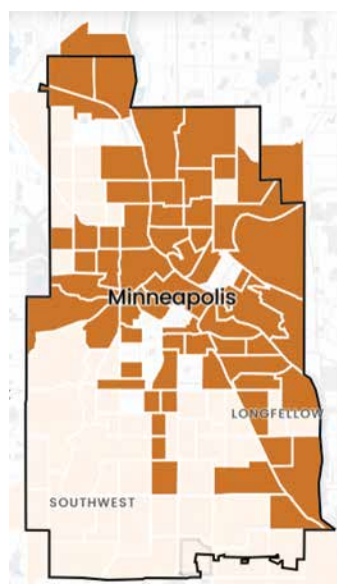
A Tale of Two Cities

The City of Lakes is renowned for its urban parks and parkways which provide green space and year-round recreational activities. Minneapolis also ranks as one of the best biking cities in the country with over 98 miles of bike lanes and 101 miles of off-street bikeways and trails. Historically, the Mississippi River served as the hub of the milling district innovating the use of hydro electric energy to power flour production in the 1880's, and today this area draws pedestrians and bikers to enjoy urban recreation. Having these green assets as a source for wellness and sustainable commerce is a defining feature of this community.

Everyone has a the right to green space like clean air, water and soil. This has not been the case for all people who live, work and play in Minneapolis. Redlining practices of the 1930s systematically provided less green infrastructure and located less desirable buildings like manufacturing facilities and transportation corridors through Black, Indigenous, People of Color and Immigrants (BIPOC), low-income neighborhoods. Notably, street trees are less present in historically redlined communities. The study, "Undoing Landscape Legacies," published by data firm CAPA Strategies, found that **Minneapolis has the country's third largest temperature disparity between formerly redlined neighborhoods and those where no restrictions applied, with a nearly 11-degree difference between the hottest and coolest areas.**

Furthermore, the perception that these resources are not equitably distributed within neighborhoods is evidenced and documented in less tree canopy, more air pollution, contaminated soils, deferred infrastructure maintenance and less access to safe green space in marginalized communities. All should benefit equitably from the green assets and infrastructure that will transform our behavior and practices toward carbon neutrality.

Historically Redlined Districts in Minneapolis



Source: Greenlink Equity Map.

Historical Redlining

"The homeowners loan corporation (HOLC) was established in 1933 as part of the New Deal. It classified neighborhoods into grades based on perceived mortgage-lending risk, which denied certain residents access to home loans, mortgages, insurance, and other financial services. The grades were from A to D. Grade D was traditionally colored in red and is what coined the term 'redlining.'" — Greenlink Equity Map.

- Grade D: "Hazardous" (redlined)
- Not Grade D: "Hazardous" (not redlined)

The following graphic is adapted from Center for Earth, Energy and Democracy's 'A Tale of Two Neighborhoods' (ceed.org/resource/a-tale-of-two-neighborhoods/).

Neighborhood A

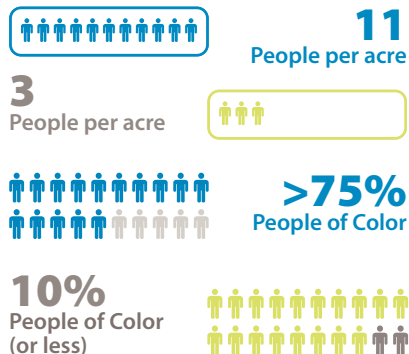
Greater than 75% People of Color

Less than 2mi apart

Neighborhood B

Less than 10% People of Color

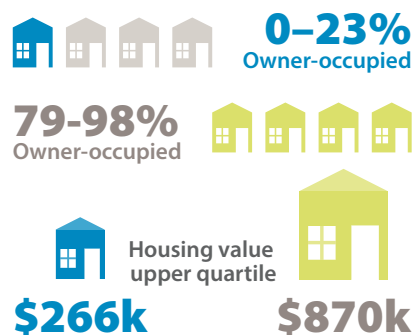
Population



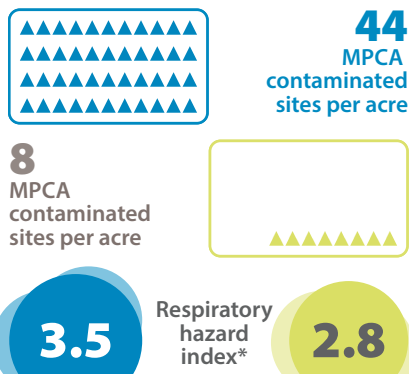
Income Distribution



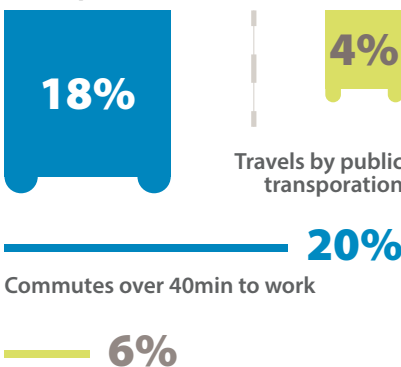
Housing



Air Quality



Transportation



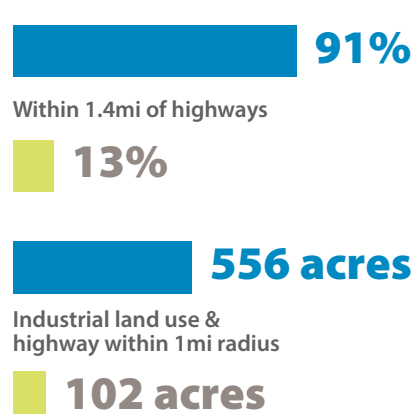
Energy Vulnerability



Green Spaces



Land Use



Access to Healthy Food



*The Respiratory Hazard Index is the sum of hazard quotients for substances that affect the respiratory system (i.e. lungs and air passages)

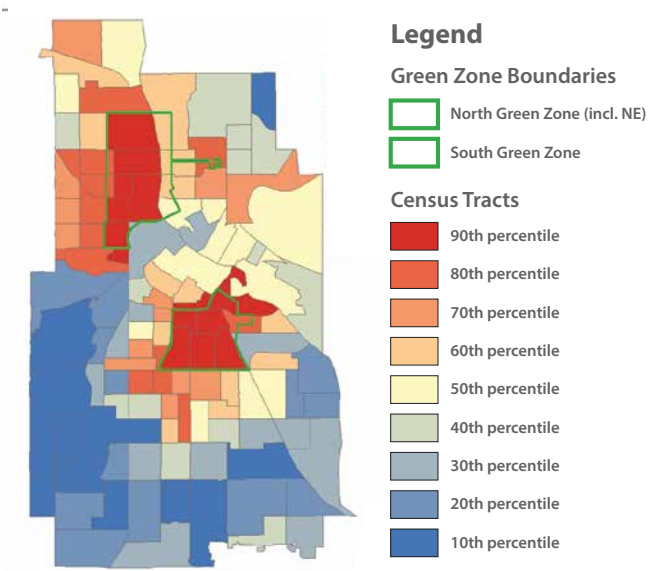
Green Zones

In response to these problems and the need to address long-term racial, social and economic disparities, Minneapolis designated two environmental justice areas of Minneapolis as Green Zones.

Green Zones

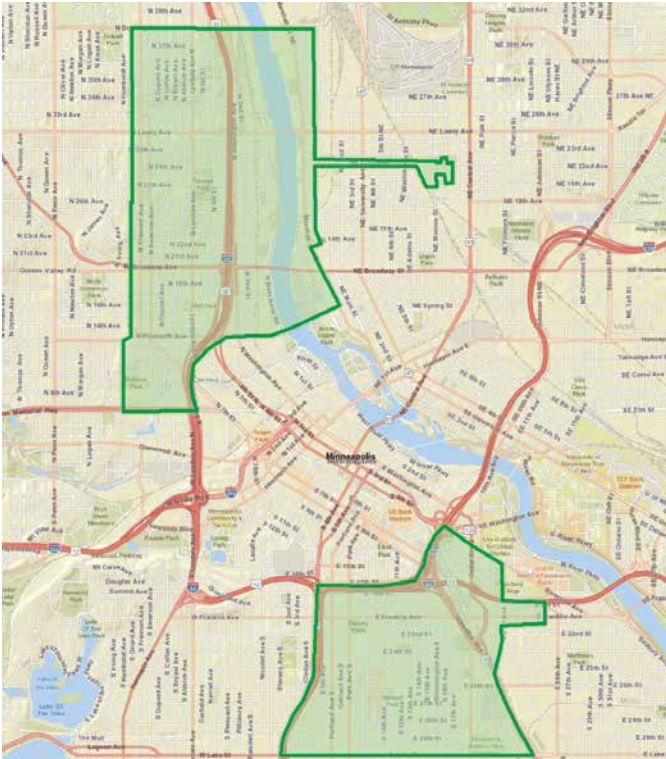
Green Zones are communities that have been deeply affected by pollution as well as racial, political, and economic marginalization. Minneapolis has two Green Zones: Northside and Southside. They were developed by the Environmental Justice Task Force in the 2013 Climate Action Plan and formally established by the City in 2017, after a citywide climate change vulnerability assessment. Climate change vulnerability is defined as the degree to which people and places are likely to experience harm due to exposure to disturbance or stress.

Minneapolis Green Zone Boundaries



Minneapolis Green Zone boundaries, showing percentiles based on Green Zone Vulnerability Characteristics (right).

The Northside Green Zone includes the neighborhoods of Hawthorne, McKinley, and Near-North, and the western portions of Marshall Terrace, Sheridan, Bottineau, and St Anthony West neighborhoods.



Minneapolis Green Zone boundaries street map.

Green Zone Vulnerability Characteristics

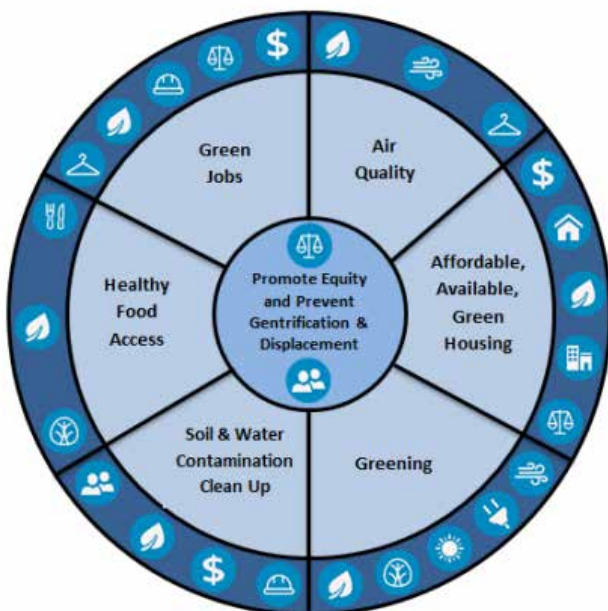
- Air quality
- Brownfield sites
- Housing characteristics
- Food access
- Vegetation
- Health outcomes
- Race, language spoken
- Jobs, education & income

The Southside Green Zone includes the Southside neighborhoods of Philips West, Midtown Philips, East Philips, Ventura Village, the northwest portion of Seward, and the southwest portion of Cedar-Riverside.

These communities have faced the greatest levels of pollution, disinvestment and marginalization while demonstrating incredible leadership in advancing climate and environmental justice initiatives. While they did not create the problem, they have the solution and must be our highest priority for the engagement, development, and implementation of City programs and resources.

What's Happening Now?

The Southside Green Zone Council and the Northside Green Zone Task Force are the Advisory Boards for each respective Green Zone. Board members are residents who have experience in environmental justice, climate resiliency, and cumulative health impacts of pollution and strive to represent the diversity of the communities they represent. Boards meet monthly and all members commit to the implementation of the respective work plans to improve environmental and population health as well as social, economic, and environmental justice.



Minneapolis Promote Equity and Prevent Gentrification & Displacement graphic. Source: City of Minneapolis.

Green Zones Prioritization

We've identified Green Zones and know the disparities our communities face. Now what? Climate Equity requires prioritization of programs, resources, and results for those who need it most. Since the creation of the Green Zones and their respective Work Plans, the City has actively been orienting resources to support climate initiatives within their boundaries. The Health Department's Green Cost Share Program offers higher incentives and total dollar amounts for projects in Green Zones. From 2019-2021, more than 200 environmental justice projects were funded that reduce pollution and increase energy efficiency while decreasing energy costs. The City also offers free energy audits for homes and has multiple financial aid programs to incentivize commercial, residential, and environmental investment in the Green Zones.

This Plan will continue to grow from the foundations and lessons of these efforts and expand to include projects that not only reduce GHGs, but also improve the health and well-being of our most vulnerable residents. It will increase funding and programming to make sure people's homes stay warm in winter and cool in summer while also reducing their energy bills. It invests in Green Job training, reducing outdoor and indoor air pollution, and making our green spaces in the city safe and accessible to all.

Appendix X: “Achieving Climate and Environmental Justice in the Southside Green Zone: Recommendations for City of Minneapolis Work Plan Action (2020-2025)”

Appendix Y: “City of Minneapolis Northside Green Zone 5-Year Work Plan” (2020)

Community Engagement

Everyone who lives, works, or plays in Minneapolis was invited to participate in the creation of this plan.

Outreach and listening sessions began in February 2022, followed by an online survey, tabling at community events, working groups, and a steering committee.

The timeline below displays the sequence of our engagement. We intentionally centered voices from Black, Indigenous, communities of color, immigrants, older and younger adults, people with disabilities, and under-resourced residents.

Community Listening

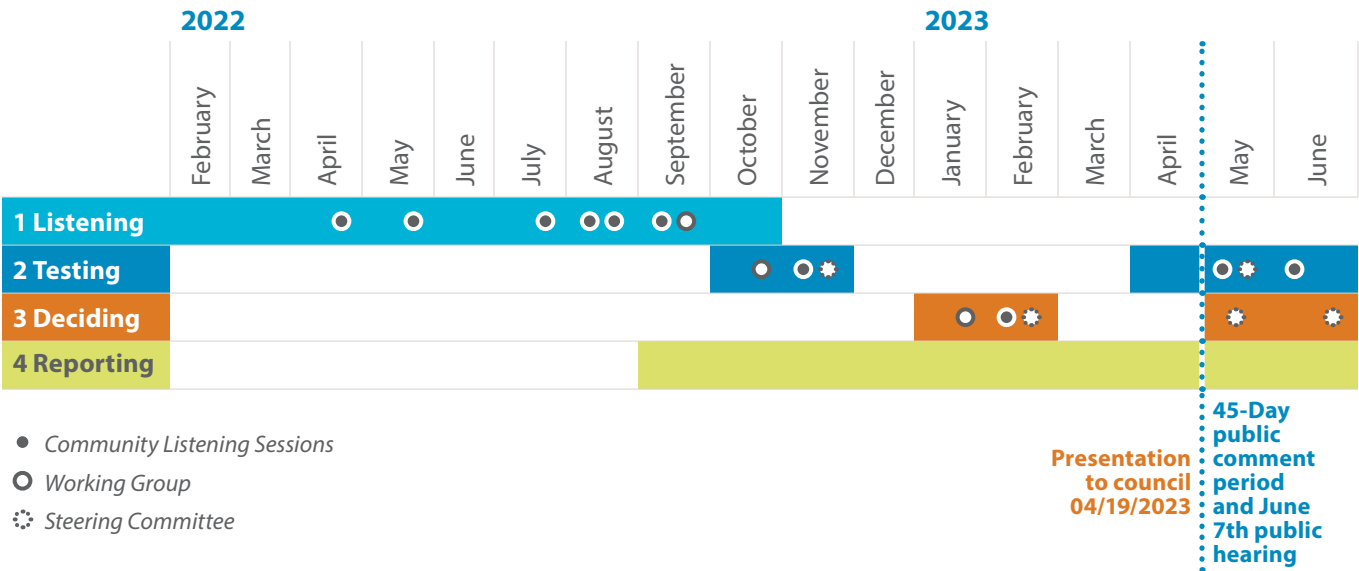
Listening sessions began in February 2022. We met with many community groups, including:

- Hmong community
- Lao Assistance Center
- Little Earth Community
- Native American Community
- One Family One Community
- Climate Generation
- St. Paul Lutheran Church (Latinx and seniors)
- Somalian and Oromo Community

Tabling at community events:

- Somali Independence Day
- Juneteenth Celebration
- Urban League Family Day
- West Broadway Open Streets

Engagement Timeline



These conversations helped us to understand the priorities, concerns, and hopes of residents about climate equity in Minneapolis.

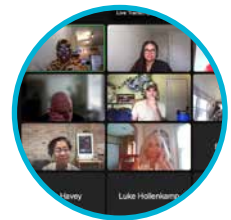
Working Groups

Listening sessions helped to identify categories for climate equity action. Working groups were formed in August 2022 around those topics. These groups developed long-term goals and actions by reviewing relevant existing plans in context of climate change to identify gaps from where we are to where we need to be to achieve accelerated targets set by this plan.

Steering Committee

The steering committee, formed in August 2022, was comprised of both technical and community experts. They served as a sounding board and guiding voice for the duration of the planning process, ensuring that our work was headed in the right direction and bringing together varying view points. They also shared insights to ensure that the plan achieves carbon goals and benefits all Minneapolis residents equitably.

Who we talked to



2022

May

- Green Zones Summit
- Online Survey



June

- One Family One Community
- Juneteenth
- Online survey
- City Departments

July

- Somali Independence Day
- Public Health Advisory Committee
- Virtual Open Forum
- Online survey
- City Departments

August

- Southside Green Zone
- Oromo Community
- Lao & Hmong Community
- Native American Community
- Lao Community
- Virtual Open Forum
- Online Survey

September

- Northside Green Zone
- Somali Community
- Online Survey

October

- Climate Generation
- Steering Committee
- Latinx Community
- Online Survey

Virtual Open Forum

Multiple open forums were held as listening sessions via Zoom and open to all. Participants were asked similar questions to the online survey and had an opportunity to discuss in small breakout rooms.

Online Survey

The online survey provided an accessible option for people unable to attend listening sessions or working group meetings and served as an opportunity for folks to provide further comments after attending a listening session. 572 people submitted responses.

While assessing the feedback from the survey we recognized that most people taking the survey self-identified as white, primarily over the age of 50, and homeowners. Survey respondents highlighted community, neighbors, and green space as strengths and public safety, lack of education and tools, and lack of access to green space as opportunities. Given the limited demographic of people who took the survey, intentional outreach during our Community Listening sessions was critical to gain a deeper understanding of the issues impacting BIPOC communities.

What We Heard: Strengths

Shared Sense of Purpose

Minneapolis residents feel connected by a shared commitment to achieving a more sustainable, equitable, and resilient Minneapolis. Many find hope in the ability of residents to come together in support of climate equity.

"It's great to see people out talking about climate change and what we can do about it. We need to talk to each other more."

— Somali Independence Day Attendee

"The passionate commitment of so many of my neighbors to finding workable solutions is how we will make it happen."

— Survey respondent

Community

Residents love the diversity in restaurants, shops, music, people, and ideas that foster our vibrant Minneapolis community. Neighbors, friends, and neighbors who are also friends were one of the most mentioned and most loved parts of living in Minneapolis. However, not all residents feel community in this way. Some mourned the community they once had, and some residents haven't felt connected to the Minneapolis community at all.

"The people in my community give me hope."

— Survey respondent

"[I] love the transition back to school post COVID, [it] feels like the community is more welcoming and supportive. [Like there is] more energy behind collective goals."

— Minneapolis High School Student

"I love how many of our neighbors have converted their lawns into pollinator gardens."

— Survey respondent

Green Space

Green space was identified as a defining feature of life in Minneapolis with benefits to human happiness, health, and economy. The urban canopy, trails, trees, parks, lakes, backyards, community gardens, native plants and the pollinators they attract were some of the things many residents highlighted as the greatest strength of Minneapolis. The long-term health and prosperity of our green space was an important concern among many people we engaged with. The access to and quality of green space across all neighborhoods is also an area identified as unequal.

"Love the green space (parks/lakes, boulevards) in the city. I love the neighborhood associations that foster community and local effort. I love the variety of cultures reflected in our restaurants and other businesses. I love the arts and museums in our town."

— Survey respondent

"I love green spaces in my neighborhood including nearby parks, trails on River Road, and tree-lined boulevards. I appreciate that children are walking and biking to school in the neighborhood. I am glad to have yard waste pick-up and organics composting as part of the solid waste program because it was hard to compost in my yard. I like the connections I have made with neighbors."

— Survey respondent



Community
Neighbors

**Shared Sense
of Purpose**

Green Space
Parks, trails, trees, lakes



What We Heard: Opportunities

Public Safety

Public safety was a significant part of every discussion we had across all our engagement. Many Minneapolis residents feel unsafe and would like to have more conversations about the future of public safety in Minneapolis.

"I hope to see more green space that's safe; kids have to go somewhere else to play because of the violence."

— Little Earth Community Member

Culturally Specific Communication

Many Minneapolis residents would like to see more accessible educational resources to support informed engagement with climate justice. Residents highlighted the importance of clear, cohesive communication that is tailored to address the specific needs of all the communities in Minneapolis and clearer and more reliable paths to get access to these resources.

Tools & Strategies

In addition to education, most of the people we engaged with wanted more tangible, easy tools and strategies they could implement to support sustainability. On an individual level, folks were interested in increasing efficiency and lowering energy bills, improving waste processes, and engaging more deeply with municipal planning like this plan. On a communal level, residents wanted to ensure that the tools and strategies to access the benefits of sustainability were being dispersed equitably, reaching those who need it most first.

"I want more tangible things I can do on a daily basis."

— Oromo Community Member

Housing Energy Burden

We heard that many Minneapolis residents had concerns about utility costs. Housing energy burden was a serious issue for many of the residents we engaged with who could not afford to keep their homes at a comfortable temperature year round. Many of the renters we engaged were unhappy with the way building owners managed the utilities and their response to utility emergencies. This included not enough heat in the winter, not enough cooling in the summer, and a lack of communication with building owners to find an effective, affordable solution.

Green Space Access

While green space was a strength for many, we also heard there were also many residents who felt unsafe using green space. Some noted that they could not access green space because it was out of walking distance and could not be accessed via transit.

"I hope kids have a safe place to play outside, [in] safe parks."

— One Family, One Community Listening Session

Air Quality

Between 2008 and 2015, fine particles (PM2.5) pollution improved by 30% and ozone pollution improved by nearly 10% throughout the Twin Cities metro area. We know, however, that even low to moderate levels of air pollution can adversely affect health, especially and more for people who already have lung and heart conditions.

Not all communities within Minneapolis experience the same exposure to air pollutants. People living near high traffic roads and heavy industry often have more exposure to air pollution. The 2022 MN Life and Breath report notes that, "the highest estimated rates of air pollution-related death and disease are found

in neighborhoods with the largest percentage of Black, Indigenous and People of Color (BIPOC), low-income and uninsured residents, and people who live with a disability.” Structural inequities formed through institutional systems like city planning, infrastructure, and policies have led to disparities in local source pollution.

“Kids have health issues like asthma.”

— One Family, One Community Listening Session

“We don’t open our windows because of the increase in car traffic along Olsen Memorial [to keep out air pollution and noise].”

— Lao Community Member



A Carbon-Neutral Minneapolis by 2050

GOAL:
Achieve Net Zero Greenhouse Gas Emissions by 2050 following the Race to Zero accelerated action path — and not exceed the total city-wide cumulative carbon budget through 2050.

We've Made Progress Since 2006 Reducing Our Greenhouse Gas Emissions

City-wide greenhouse gas (GHG) emissions are currently measured from five sources: use of electricity, combustion of fossil (natural) gas in buildings, use of gasoline and diesel for on-road transportation, the disposal of solid waste in landfills, and the disposal and cleaning of wastewater from buildings. GHG emissions reported as millions of metric tons of carbon dioxide equivalent (mtCO₂e) from these five citywide activities have decreased 30% compared to the 2006 baseline (which was first established in the 2013 Minneapolis Climate Action Plan).

Minneapolis Greenhouse Gas (GHG) Emissions from Citywide Activities

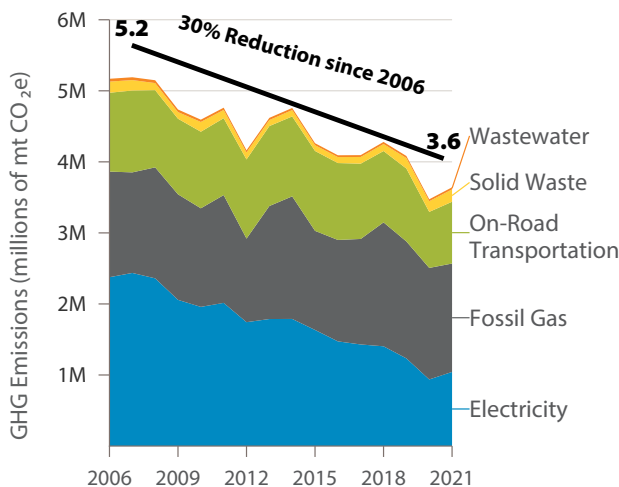


Figure 1.

GHG emissions reductions to date are in large part attributed to progress on electricity decarbonization, moving away from coal and instead to wind, solar, and cleaner fossil gas to produce electricity. For a fifth consecutive year, fossil gas was the largest source of GHG emissions in Minneapolis in 2021, at 42%, followed by electricity (28%) and on-road transportation (24%).

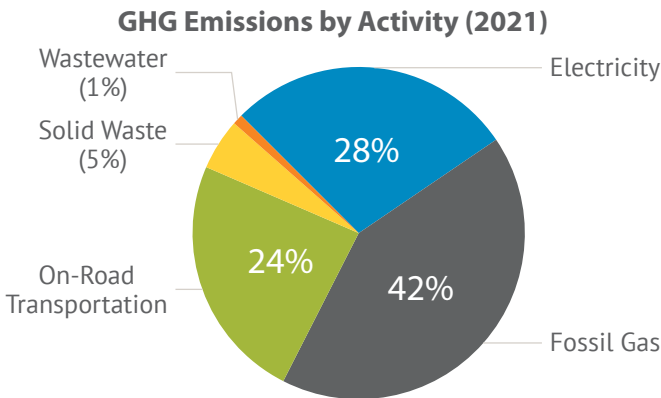


Figure 2.

Pledging to be Net-Zero GHG Emissions by 2050

In October 2021, Mayor Frey pledged commitment to the Race to Zero campaign for the city to proceed immediately in taking all necessary steps in line with global efforts toward limiting warming to 1.5°C / 2.7°F including a pledge to reach net-zero GHG emissions by 2050. This commitment replaced the 2013 Minneapolis Climate Action Plan's previous goals, principally a GHG emission reduction of 80% by 2050.

Minneapolis has adopted a "Steep Decline" carbon-neutrality trajectory, starting in 2019 and onward, to secure our community's contribution to limiting global temperature rises to 1.5°C. This is consistent with C40's Deadline 2020 methodology which guides cities in

defining their specific science-based, fair share GHG emission reduction trajectory. According to Deadline 2020, this means that for Minneapolis “emissions need to be immediately and rapidly reduced and the city is sufficiently developed to do so.”

The goal trajectory illustrates that the next decade is critical toward the city accomplishing this new climate goal, requiring us to greatly accelerate our pace of

decarbonization to the point that 2030 emissions are 75% less than 2006 emissions. This trajectory also represents the total GHG emissions (or “carbon budget”) that can be emitted by Minneapolis over the next three decades in meeting our local obligation to keep global warming to 1.5°C.

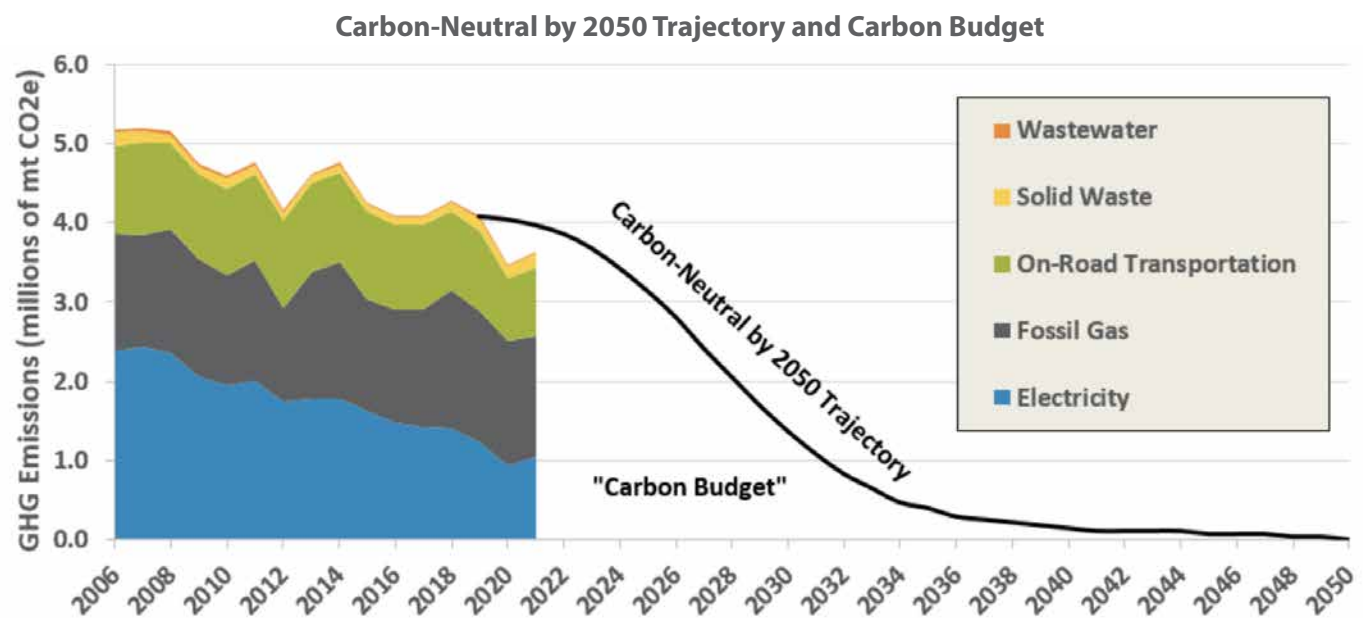


Figure 3.

Climate Action at Our Current Pace is Not Enough to Meet New Goals

Projecting the previous five-year rate of decarbonization into the future gives an indication of what could be expected in a business-as-usual (BAU) scenario, wherein Minneapolis continues on our recent rate of climate action. At the recent rate of GHG emissions reductions the city exceeds the goal trajectory in 2025 and exhausts its 30-year carbon budget in just nine years, in 2031.

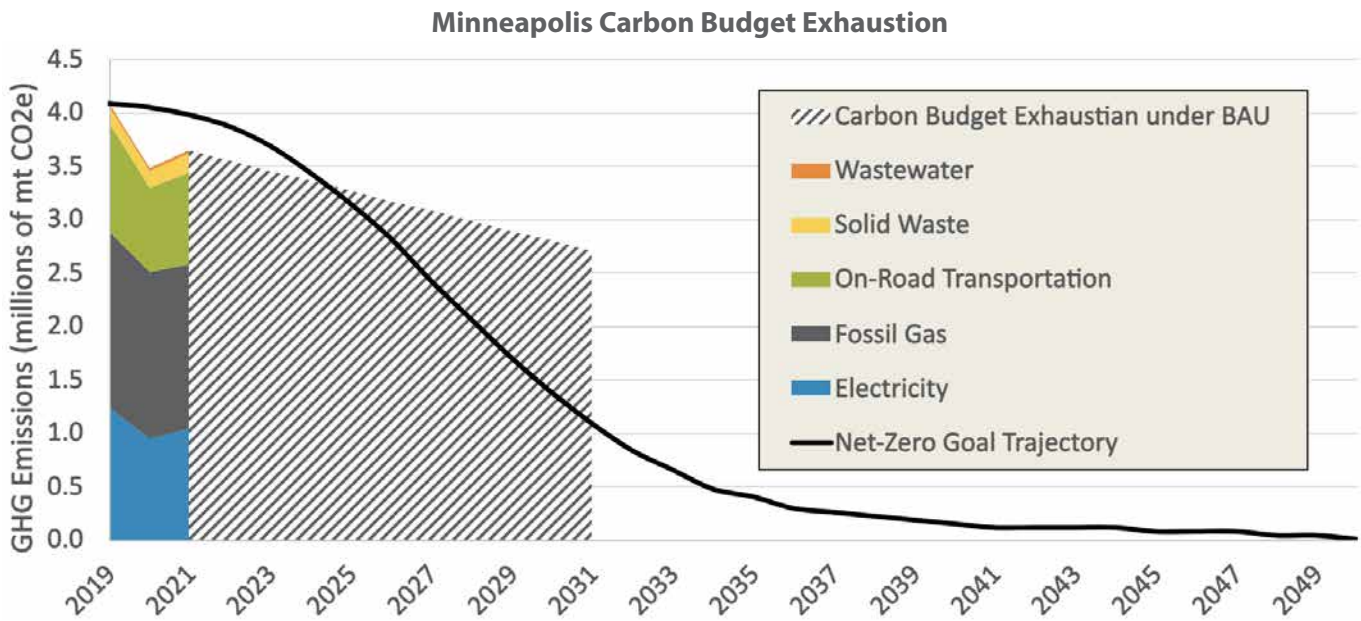


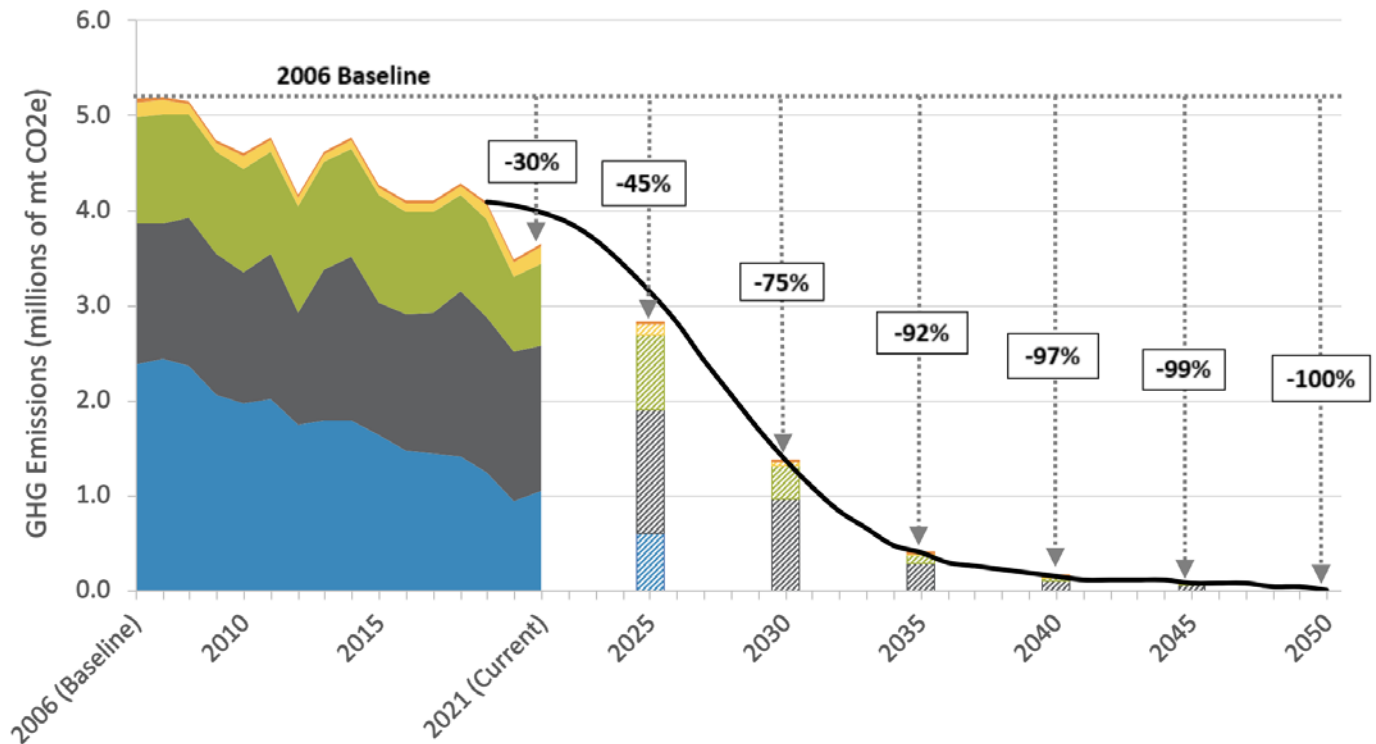
Figure 4.

Accelerated Climate Action is Needed

To remain within our city’s carbon budget and remain on our selected trajectory to net-zero GHG emissions by 2050, this Plan establishes overall and source-specific goals for upcoming years.

The Minneapolis Clean Energy Partnership will play a vital role in achieving the city’s GHG reduction goals in a equitable way. CenterPoint Energy has begun the process of creating an innovation plan that will include fossil gas decarbonization strategies to decrease gas emission in the coming years. Xcel Energy will also play a key role in achieving the city’s renewable electricity goal.

Green House Gas (GHG) Emission Reduction Goals Compared to 2006 Baseline



Green House Gas (GHG) Emission Reduction Goals¹ Compared to 2006 Baseline

Year	Electricity	Fossil Gas	On-Road Transportation	Solid Waste	Wastewater	Overall
2021 Actual	-56%	3%	-22%	11%	-26%	-30%
2025 Goal	-75%	-10%	-30%	-25%	-45%	-45%
2030 Goal	Carbon-Neutral	-35%	-70%	-70%	-75%	-75%
2035 Goal	Carbon-Neutral	-80%	-91%	-91%	-93%	-92%
2040 Goal	Carbon-Neutral	-93%	-97%	-97%	-97%	-97%
2045 Goal	Carbon-Neutral	-97%	-98%	-98%	-99%	-99%
2050 Goal	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral

¹ Federal, State, County, Private and Non-Profits partners will be needed to achieve these goals.

Figure 5.

Our Call to Action

Air
Buildings & Industry
City Operations & Enterprise
Economy & Workforce
Energy Systems
Food and Zero Waste Circular Economy
Green Space & Trees
Healthy Homes
Transportation & Complete Streets
Water

ACRONYMS AND DEFINITIONS:

CPED: *Community Planning and Economic Development Department of the City of Minneapolis*

Homegrown Mpls: *Homegrown Minneapolis is a division of the Minneapolis Health Department*

IGR: *Intergovernmental Relations*

MFV: *Minneapolis Food Vision*

MPRB: *Minneapolis Park and Recreation Board*

MNDOT: *Minnesota Department of Transportation*

MPCA: *Minnesota Pollution Control Agency*

PW: *Public Works*

SHHE: *Sustainability, Healthy Homes and the Environment Division of the Minneapolis Health Department*

Utilities: *CenterPoint Energy (Gas) and Xcel Energy (Electric)*

Public Land *refers to land owned by the Minneapolis Park and Recreation Board*

Green Space *refers to the open space owned by the City of Minneapolis*

ACTION CATEGORIES:

Pilot: *A pilot program, also called a feasibility study or experimental trial, is a small-scale, short-term experiment that helps an organization learn how a large-scale project might work in practice.*

Process: *the process of the formulation and administration of public policy usually by interaction between social groups and political institutions or between political leadership and public opinion.*

Program: *an ongoing activity sponsored or administered by local, state, or national governments.*

Policy: *a principle or course of action proposed or implemented by a governing body.*



Air

GOAL:

Reduce outdoor and indoor air pollution to improve health outcomes—such as reducing asthma rates—with a focus on the Green Zones, and other neighborhoods and households experiencing cumulative air quality impacts.

What's Happening Now?

The Minneapolis Health Department has staff dedicated to working with community members to install air quality monitors at homes and businesses throughout the city. The data from these monitors will help the city know where to focus efforts to address local air pollution issues.

Climate Impact

Sources of climate pollution like cars, diesel trucks, gas stoves, and gas furnaces also lead to local air pollution like ground-level ozone and nitrogen oxides (NOx). Working to eliminate these sources of local air pollution will also help our climate.

“Kids have health issues like asthma.”

— One Family, One Community Listening Session

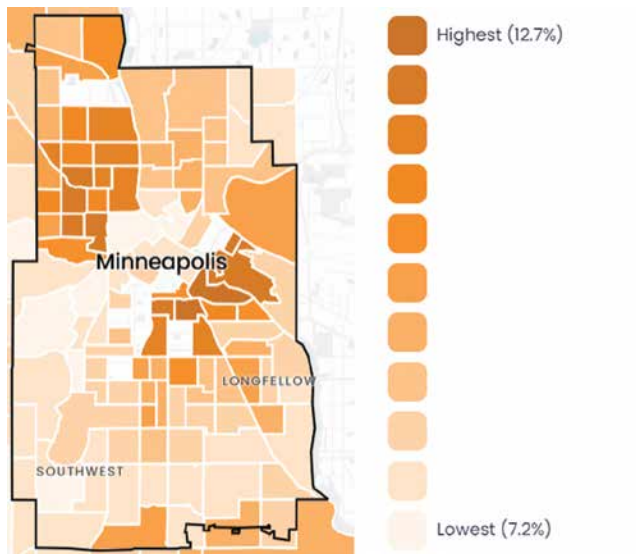
Equity Impact

The highest rates of air pollution-related death and disease are in neighborhoods with the largest percentage of Black, Indigenous and People of Color (BIPOC), low-income and uninsured residents, and people who live with a disability. For example, zip codes with the largest percentage of BIPOC residents had more than five times the rate of asthma emergency room visits related to air pollution compared to areas with more white residents. Working toward clean air in every neighborhood and home will improve equity, including racial equity. Clean air will reduce asthma, improve school and work attendance, and lead to people living longer, healthier lives. The City will prioritize the Green Zones communities, our official environmental justice areas. Breathing clean air in our daily lives is essential to our vision for a healthy and equitable community.



Above, from top: Minneapolis skyline, by Lane Pelovsky, Lake Harriet Kite Festival by Augustus Isaac. Both courtesy of Meet Minneapolis.

Minneapolis Asthma Rates by District



Shows median percentage of adults with asthma. Source: Greenlink Equity Map.

"I'm noticing air pollution—lots of kids have asthma in the neighborhood; something in the air; hard on kids and elders."

— Little Earth Community Member

Planning Considerations

Our ability to clean up indoor air depends on state policies that allow cities to require efficient buildings that are all-electric. To improve air quality, we also need the state to require cleaner transportation and clean fuel sources for heating and electricity. Additionally, the City is seeking partnership with the federal government for grants to help fund this work.

Strategies & Actions

Strategy AIR.1. Study, mitigate, and reduce outdoor and indoor air pollution to improve health outcomes in Minneapolis—with a focus on the Green Zones and other neighborhoods and households experiencing cumulative air quality impacts. *Lead(s): SHHE and MPCA*

Strategy AIR.2. Co-convene, quarterly City/county/community air quality working group meetings to maintain mutual transparency & accountability to act on air quality data. *Lead(s): SHHE, MPCA, and Hennepin County*

Action AIR.2.1. Process: Address cumulative air quality impacts in Green Zones and impacted Minneapolis neighborhoods.

Action AIR.2.2. Pilot: Act on city, state and community air monitoring data to reduce point & mobile source air pollution.

Action AIR.2.3. Program: Increase activity to support healthy homes outreach and retrofits.

Action AIR.2.4. Pilot: Implement residential programs to monitor and improve indoor air quality, especially in areas with higher-than-average asthma rates.

Action AIR.2.5. Program: Increase neighborhood tree planting on blocks experiencing high levels of outdoor air pollution to improve their indoor air quality, reduce asthma triggers, and improve health outcomes.

Action AIR.2.6. Program: Neighborhood-wide mitigation of air pollution (i.e. tree planting, vegetative buffers, anti-idling, etc.).



Buildings & Industry

GOALS:

1) Equitably reduce GHG Emissions from the industrial, commercial and multi family building sector by 75% by 2030.

2) Ensure all new City Enterprise Buildings, and City funded buildings will be net zero GHG by 2030.

How are Commercial, Multi-Family Residential and Industrial Buildings Producing Emissions?

When you think of air pollution, you probably think of big stacks pouring clouds of smoke into the sky. In Minneapolis, our greenhouse gas emissions are a little different. We create most of our carbon pollution by heating, cooling, and lighting our buildings. We have cold winters which require lots of heat and hot and humid summers which require lots of cooling. We also have old and inefficient buildings that need even more energy to keep us comfortable. This requires massive amounts of energy. This energy comes from electricity and fossil gas, which create GHG emissions. Fossil gas use in buildings includes heat, appliances, water heating, and specific industrial applications.

We have better air quality than many other cities, but we still have a long way to go to reduce our emissions. No two buildings are exactly alike and they need to be studied before being upgraded. Luckily, there are lots of things we can do right now to improve our buildings. Upgrades will make them more efficient and less expensive to operate. They will also be more resilient to unexpected weather events of climate change.

What's Happening Now?

There's a lot of work to do, but we've got a lot of great things happening to make our buildings better. The Energy Benchmarking Program tracks electric and gas use of commercial and multifamily buildings over

50,000 square feet. The worst energy performing buildings get a free energy study. This study identifies quick and easy ways to save energy and money. The City also has a Green Cost Share Program that offers matching funds for energy projects.



Above: Hook & Ladder Apartments provides 59 units of affordable housing and was the first multi-family building in Minnesota and the region to be certified to passive house (Phius) standards. (Photo: lhbcorp.com/projects/hook-and-ladder).

Previous page: LEED-Certified Minneapolis Convention Center. Photo by Ric Rosow, courtesy Meet Minneapolis.

It's important that the City leads by example. Currently, our Sustainable Building Policy ensures all new City owned-and-operated buildings use 80% less carbon compared to the same structure built in 2006. By 2030, all new buildings will need to achieve net zero GHG emissions. We're also working on a policy for city-funded buildings focused on equity that will make buildings in underserved areas more energy efficient and resilient while costing less to operate.

Climate Impact

In 2021, buildings in Minneapolis emitted about 2.5 million "metric" tons of GHGs. About 65% of these are from commercial, multifamily, and industrial buildings. Apartments, townhomes, and condos over 5 units are classified as 'commercial' buildings by utilities and the

City and are included in these numbers. From all these buildings, almost 60% of emissions are from fossil gas and the rest are from electricity.

Equity Impact

We know that climate change will hit our most vulnerable communities the hardest. Buildings are no exception. Disadvantaged communities have older, poorly maintained buildings that are energy inefficient. These businesses will cost more to operate. These older multi-family apartments have higher bills and are more vulnerable to heat waves and cold streaks. There may also be harmful materials like lead, asbestos, mold, and animal infestations that can have serious impacts on people's health. Also, some of our most overburdened neighborhoods are near high-polluting industrial areas. Climate impacts on health are even worse when combined with other air pollution in these communities.

Planning Considerations

The 2013 Climate Action Plan first began reducing emissions from commercial, multifamily, and industrial buildings. This work has reduced emissions by more than 30% over the last 10 years. But we still need to do much more.

The next 10 years will build on our success and improve from the lessons learned. We'll identify new opportunities and needs while we improve our data and programs. It won't be easy. We need massive increases in energy efficiency and building electrification. Based on utility trends and projections, electric efficiency and renewable energy have reduced emissions the most. These are our best options to reach our goals. Fossil gas has failed to achieve reductions and shows little sign of improvement.

A Building Performance Standard would build on the existing Benchmarking Program. It would go beyond reporting data and make sure building energy-use aligns with climate goals.

We also need to reduce the carbon from the materials in our buildings. This is known as "embodied carbon". Steel, concrete, and imported materials make a lot of carbon emissions. By reducing or eliminating carbon-intensive materials, we can reduce our impact even more.

"[I want Minneapolis to] control pollution from industrial buildings."

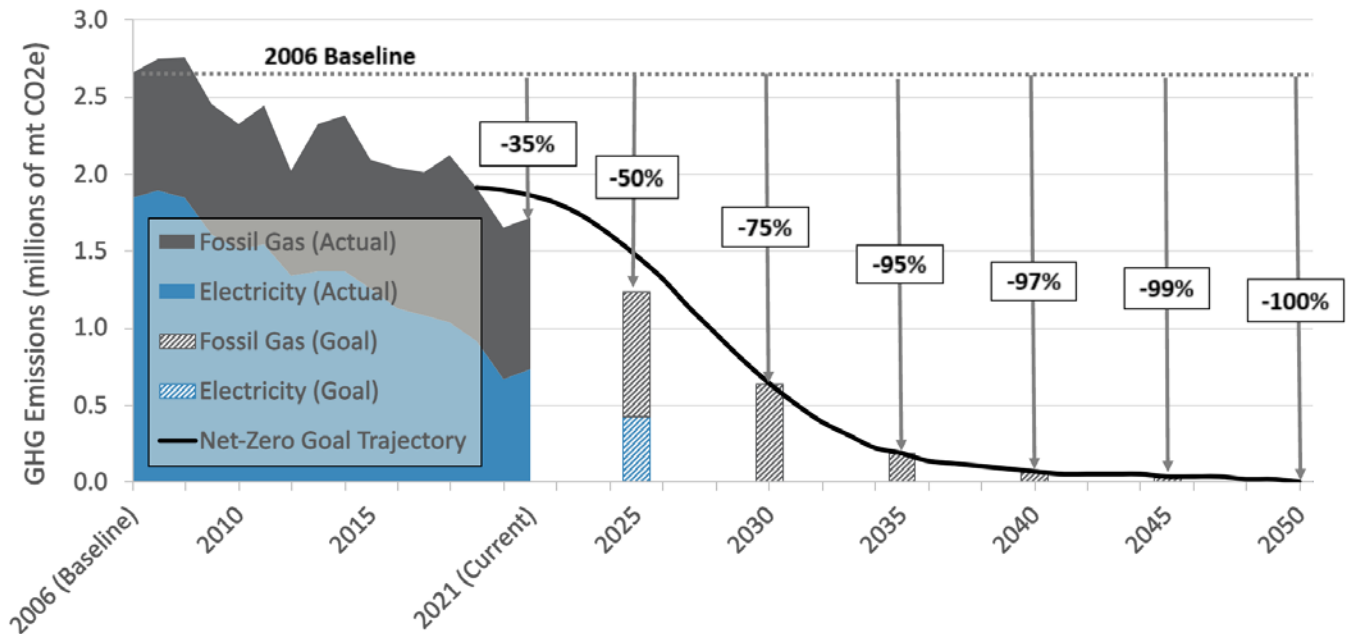
— Lao Community Member

"Existing initiatives, resilience hubs, building standards?"

— Survey respondent

Goals

Buildings & Industry — Commercial, Industrial and Multi-Family GHG Emissions (Change Compared to 2006 Baseline Year)



Buildings & Industry — Commercial, Industrial and Multi-Family GHG Emissions (Change Compared, to 2006 Baseline Year)

Year	Electricity	Fossil Gas	Overall
2021 Actual	-60%	21%	-35%
2025 Goal	-75%	0%	-50%
2030 Goal	Carbon-Neutral	-20%	-75%
2035 Goal	Carbon-Neutral	-75%	-93%
2040 Goal	Carbon-Neutral	-92%	-97%
2045 Goal	Carbon-Neutral	-96%	-99%
2050 Goal	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral

Figure 6.

Strategies & Actions

Strategy BIN.1. Equitably reduce GHG emissions from the industrial sector through increased research and knowledge of industrial energy use in Minneapolis. *Lead(s): SHHE, Utilities, Community Partners, Regulatory Services, CPED*

Action BIN.1.1. Process: Conduct a citywide evaluation of industrial uses.

Action BIN.1.2. Program: Evaluate an Industrial sector component to the existing Minneapolis Energy Benchmarking Program including supportive incentives.

Action BIN.1.3. Process: Identify similar industry groupings in Minneapolis and Metro Area.

Strategy BIN.2. Align state Greenhouse Gas reducing policies, programs, and incentives to achieve the City's reduction goals. *Lead(s): SHHE, IGR, Utilities, Community Partners, Regulatory Services, CPED*

Action BIN.2.1. Program: Leverage Conservation Improvement Programs (CIP) to support Industrial efficiency.

Strategy BIN.3. Advance partnerships that meaningfully support, implement, and promote industrial emission reductions. *Lead(s): SHHE, Utilities, Community Partners, Regulatory Services, CPED*

Action BIN.3.1. Process: Explore, incentivize, and develop industrial-scale carbon-free energy systems such as green hydrogen, district energy, and geothermal for industrial uses.

Action BIN.3.2. Process: Create space for the discussion, analysis, and implementation of existing zero/low-emission energy technologies among public, private, non-profit, academic, and community participants. Include "future-proofing" adaptation for future technology.

Action BIN.3.3. Process: Engage with private sector stakeholders, associations, state, and federal government to push for solutions and reward success.

Action BIN.3.4. Program: Develop programmatic resources for Industrial emission reduction including financial opportunities through the Green Cost Share Program.

Strategy BIN.4. Reduce GHG emissions from Commercial and Multifamily building sectors by Expanding and enhancing the City of Minneapolis Energy Benchmarking Program. *Lead(s): SHHE, Utilities, Community Partners, Regulatory Services, CPED*

Action BIN.4.1. Program: Complete ASHRAE Level 1 energy audits for all buildings in the Benchmarking Program.

Action BIN.4.2. Policy: Utilize best practices from the benchmarking program to educate property owners of less than 50,000 ft² buildings.

Action BIN.4.3. Program: Provide access to no-cost energy audits to less than 50,000 ft² building property owners.

Action BIN.4.4. Program: Develop a building energy management training program.

Action BIN.4.5. Policy: Develop model with equity-based criteria for qualifying buildings utilizing City resources.

Action BIN.4.6. Program: Develop a commercial building weatherization program.

Action BIN.4.7. Program: Enhance the Utility's Conservation Improvement Programs (CIP) to provide rebates based on the existing level of insulation and efficiency for existing buildings rather than basing rebates on the improvement from the current building code standards.

Action BIN.4.8. Program: Develop an incentive-based rebate and funding model that addresses the "split incentive" of energy savings and costs of owners vs. renters.

Action BIN.4.9. Process: Improve the ease, usefulness and outreach of the Renter Energy Disclosure Program.

Action BIN.4.10. Program: Incentivize the use of residential cold-climate heat pumps in multifamily buildings; Incentivize building owners to replace gas appliances at the end of their useful life with electric (i.e. HVAC, ranges/ovens/water heaters, dryers).

Action BIN.4.11. Program: Expand Green Cost Share Program to incentivize multi-family and commercial buildings to increase efficiency and on-site renewable electricity.

Action BIN.4.12. Program: Pilot community based renewable energy systems for heating and cooling.

Action BIN.4.13. Policy: Develop an Existing Building Performance Standard and develop an Innovation Hub to support implementation through technical assistance and incentives.

Action BIN.4.14. Policy: Evaluate climate change projection recommendations into building code.

Action BIN.4.15. Policy: Develop process to analyze the embodied carbon of new building materials and set a goal to decrease embodied carbon.

Strategy BIN.5. Ensure all City Enterprise and City Funded new building projects are built to B3 and Sustainable Building (SB 2030) standards. *Lead(s): SHHE, Regulatory Services*

Action BIN.5.1. Complete Economic Development Sustainable Building Policy.



City Operations & Enterprise

GOALS:

- 1) Establish a Climate Legacy Initiative to support the Climate Equity Plan Implementation.
- 2) Achieve Net Zero GHG emissions by 2040 for all City Operations.
- 3) Ensure Climate Investments and Programs are accountable to the community, meet the Federal Justice40 requirements, and prioritize Green Zones and Environmental Justice Communities.

Leadership

The City of Minneapolis is in a great position to help City residents, businesses, property owners and non-profits by leading by example. We can do this by leading with equity and environmental justice as we leverage climate mitigation and resilience investments to support a healthier, wealthier, and more equitable future for all residents and businesses. The Climate Equity Plan sets a goal for our community to be net zero carbon by 2050 and to accelerate our community's climate action between now and 2030. But the City enterprise should strive to meet net zero GHG emissions by 2040 and provide a guide path for other cities and organizations. The strategies in the plan focus on strategies that are intended to be initiated over the next five years and continue as needed through 2050.

Photos, previous page, counter-clockwise: Minneapolis Service Center Building (courtesy Henning Larsen, Corey Gaffer), Target Center green roof (courtesy The Kestrel Design Group, INSPEC, Leo A. Daly, ©2009 Bergerson Photography), and a community listening session.

What's Happening Now?

Greenhouse gas emissions from City facilities and operations have decreased 62% as of 2021 from a 2008 baseline, which is primarily the result of reductions in emissions from electricity. The reductions in electricity emissions are the result of the reduced carbon intensity of the electric grid paired with City subscriptions in community solar gardens and Xcel Energy's Renewable*Connect green tariff program. Additionally, City municipal operations have realized a 21% overall decrease in energy consumption since the 2008 baseline year.

Emissions from fossil gas consumption have remained relatively constant since 2008 and require further action to reduce.

Climate Impact

The City of Minneapolis operations-impact on climate is significant in many ways. The actual GHG emissions for a \$1.7 Billion enterprise is significant, but even more significant is the impact the City can have as an innovator developing by example best practices for the private sector and other organizations.

Equity Impact

The Climate Equity Plan will be applied community-wide with a special focus on and prioritization of the Northside and Southside Green Zones for clean energy deployment, workforce training, and other initiatives, such as expanding green spaces, protecting air quality, and improved mobility.

Planning Considerations

Developing the goals, strategies and actions for City Operations is intended to build off of the existing plans that various departments have in place such as the Food Vision, 2040 Comprehensive Plan, Zero

Waste Plan and Transportation Action Plan to name a few. While we built on these plans, they may need to be updated to align with the Climate Equity Plan's Race to Zero Net Zero GHG emissions by 2050

reduction goals. We also considered the dual role the City plays as a large institution and as a leader in climate action.

Strategies & Actions

Strategy COE.1. Establish a Climate Legacy Initiative to support the Climate Equity Plan Implementation. *Lead(s): Mayor, SHHE*

Action COE.1.1. Program: Establish a Climate Legacy Initiative fund with on-going dedicated revenue.

Action COE.1.2. Process: Ensure community input on the implementation of the Climate Equity Plan and Climate Legacy Plan Investments.

Action COE.1.3. Process: Utilize new federal, state, and local grant funding to support decarbonization.

Action COE.1.4. Process: Increase capacity in 2024 and beyond to support the implementation of the Climate Equity Plan and Climate Legacy Initiative.

Strategy COE.2. Achieve Net Zero GHG emission by 2040 for all City Operations. *Lead(s): SHHE, Property Services, Public Works*

Action COE.2.1. Process: Establish an Enterprise Climate Equity Cabinet.

Action COE.2.2. Policy: Leverage sustainable building policies to ensure all new enterprise building projects are built to net zero GHG emissions standards by 2030.

Action COE.2.3. Policy: Prioritize reducing emissions from fossil gas in City owned buildings.

Action COE.2.4. Process: Integrate Carbon Accounting into capital improvements, purchasing and budget process.

Action COE.2.5. Process: Accelerate electrification of enterprise cars and trucks.

Action COE.2.6. Pilot: Pilot and test new carbon reduction technologies for commercial applications.

Action COE.2.7. Program: Utilize the social cost of carbon in City Budgeting processes to prioritize carbon-free activities.

Action COE.2.8. Process: Commission a blueprint for how the City Enterprise can decarbonize City Operations by 2040.

Action COE.2.9. Process: Establish a GHG budget for the 6-year Capital Improvement Program that aligns with the City's climate goals and is adjusted downward over time to ensure that investments are directed to projects that advance progress on the overall goals of the Climate Equity Plan.

Strategy COE.3. Achieve 100% Renewable Electricity for municipal Operations by 2023.

Lead(s): Property Services and SHHE

Action COE.3.1. Policy: Leverage municipal rooftops and open space to install local solar.

Action COE.3.2. Policy: Seek Xcel Energy authorization to use virtual net metering (VNM).

Action COE.3.3. Program: Secure Xcel Energy's Renewable*Connect Contracts to fill gap not met by local solar through 2030.

Action COE.3.4. Policy: Require Equity Strategies and community benefits be embedded in city owned or city financed renewable energy projects.

Strategy COE.4. Ensure Climate Investments and Programs are accountable to the community, meet the Federal Justice40 requirements and prioritize Green Zones and Environmental Justice Communities. *Lead(s): SHHE with support from all City departments, IGR*

Action COE.4.1. Program: Track investments that meet Federal Justice40 Initiative and are in Green Zones.

Action COE.4.2. Process: Create an outreach campaign that helps us learn from our diverse communities about ways to help people who want to get involved.

Action COE.4.3. Program: Expand use of Green Cost share program across residential, commercial and industrial sectors with a focus on equity.

Action COE.4.4. Process: Promote use of Federal and State tax incentives to businesses and residents.

Action COE.4.5. Process: Conduct a vulnerability analysis and complete a citywide resilience plan.

Action COE.4.6. Program: Establish robust tree planting program on City and private property.

Action COE.4.7. Program: Continue support of CPED's Minneapolis Homes for Passive and Net Zero energy new affordable housing.

Action COE.4.8. Policy: Support provisions in state law for participant's compensation in PUC proceedings.

Strategy COE.5. Launch collaborative implementation of the Climate Equity Plan with topic-specific team to align and secure local, state, and federal funding. *Lead(s): SHHE with support from all City departments, IGR, Hennepin County and the State of Minnesota*

Action COE.5.1. Policy: Establish policies and funding programs that incorporate the social cost of carbon.

Economy & Workforce

GOALS:

1) Prepare multiple Green Career Pathways for Minneapolis Residents

2) Support new green businesses and expansion of existing Minneapolis businesses.

Whats Happening Now?

Minneapolis Employment and Training (MET) within Community Planning and Economic Development (CPED) helps residents find and keep jobs. MET programs include services for low-income adults, laid-off workers, and youth. Community partners and providers also serve Minneapolis job seekers and businesses.

In addition, the Minneapolis Health Department has a green career program to help young students of color prepare for green careers as well as support 17+ adults with training and credentialing in areas such as solar energy.

Climate Impact

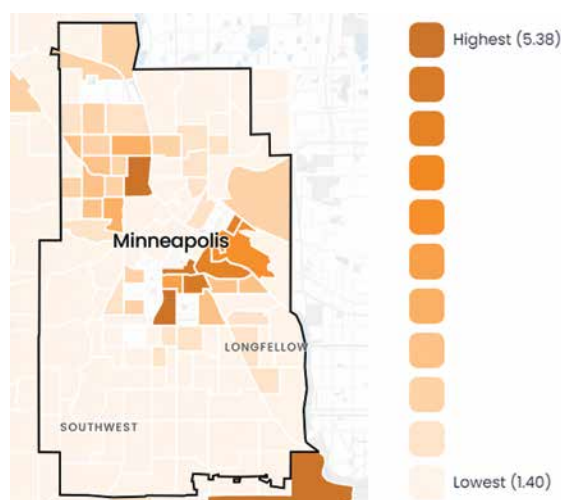
The impact of climate change is most immediately felt by low income and People of Color, in many cases due to a lack of resources. With the need for thousands of new high paying jobs to address climate mitigation, we have an opportunity to improve the economic wealth of our community through expansion of green jobs that then will help drive down GHG emissions and build wealth in our community.

Equity Impact

To ensure that everyone shares in the future prosperity we support the [United Nations Intergovernmental Panel on Climate Change \(UN IPCC\) Just Transition](#)

Principles. These principles aim to ensure that no people, workers, places, and sectors, are left behind in the transition to a low carbon economy.

Minneapolis Income Stress by District



Income stress shows median household incomes. Source: Greenlink Equity Map.

Planning Considerations

The success of this plan is dependent on having a workforce ready to build and maintain the new green buildings, energy systems and infrastructure of tomorrow. Yet, hiring and training in the current economy is a major challenge. We need to balance the need to go fast with the need to be inclusive of members of the community. The plan will support many new forms of assistance to ensure workers can access new green jobs and help entrepreneurs start new businesses. By expanding our partnerships with community workforce training partners and labor unions, we can leverage existing programs and co-design new programs to support the green jobs of the future.

Notably, union jobs provide living wages and retirement security. They provide jobs with retirement and health plans, creating an opportunity to pull

people out of poverty. Union leaders are interested in the opportunity that addressing the climate crisis creates for diversifying the trades and will be an important partner in the effort to both mitigate climate and offer inclusive opportunities for People of Color.

Strategies & Actions

Strategy ECW.1. Prepare Green Career ladders for Minneapolis Residents. *Lead(s): SHHE, CPED, and Community-based worker training organizations*

Action ECW.1.1. Program: Educate and train 1,000 residents in green careers by 2030.

Action ECW.1.2. Policy: Support diversifying the Xcel Energy workforce to increase the BIPOC Minneapolis residents working for Xcel.

Action ECW.1.3. Program: Expand workforce training for solar energy and energy efficiency.

Action ECW.1.4. Process: Adjust City job descriptions to be more inclusive of alternatives to formal college degrees.

Action ECW.1.5. Process: Work with local schools, trade associations, labor unions and educational institutions to coordinate green career education and recruitment.

Strategy ECW.2. Support new Green Businesses and contractors. *Lead(s): SHHE, CPED, and Community-based business development organizations*

Action ECW.2.1. Program: Expand financing to BIPOC-owned businesses.

Action ECW.2.2. Policy: Provide multi-year City contracts to entrepreneurs and small business.

Strategy ECW.3. Expand business startup funding through CPED for Green Business.

Lead(s): CPED

Action ECW.3.1. Policy: Invest in Green Jobs and Workforce Development by establishing a BIPOC participation requirement in City-supported efficiency and renewable energy jobs.

Action ECW.3.2. Program: Provide education and technical assistance for new businesses.

Action ECW.3.3. Program: The City should work with community organizations who specialize in business incubation capacity building and capital acquisition etc. New talent will also be needed for new and expanding companies. Candidates for working in the trades may benefit from assistance obtaining drivers licenses and access to reliable transportation to work in many of the fields needed like solar, energy auditing, and green infrastructure.

Strategy ECW.4. Partner with unions and the trades to support the underemployed entering green career fields as well as working with the unemployed or first-time workers. *Lead(s): SHHE, CPED, Community-based worker training organizations, trade associations and labor unions*

Strategy ECW.5. Partner with community organizations who specialize in wrap around services to provide transportation, housing, etc. for fields like solar, energy auditing, and green infrastructure. *Lead(s): SHHE, CPED*

Energy Systems

GOALS:

- 1) **Reduce emissions from fossil gas citywide by 35% by 2030.**
- 2) **Achieve 100% Renewable Electricity by 2030 citywide.**
- 3) **Establish a franchise fee structure by 2025 that promotes both conservation and GHG emission reduction, and utilizes additional revenue for accelerated, equitable climate action.**

Where Does Energy Come From in Minneapolis?

Energy is provided to the city primarily in the forms of electricity and fossil gas, exclusively provided by Xcel Energy and CenterPoint Energy, respectively. The state has granted regulated monopoly status to each utility for their respective energy source and regulates them at the Public Utilities Commission and Department of Commerce. The City has entered into franchise agreements with each utility, laying out the means and costs associated with their operations in our community. The current 10-year franchise agreements expire in October 2024, at which time new, renegotiated franchise agreements can come into effect. The city collects franchise fees from the customers of each utility as part of the franchise agreement and invests a portion of that funding toward climate action.

A number of district and campus energy systems provide heating, cooling, and/or electricity to clusters of buildings throughout the city. Campus energy systems typically serve multiple buildings owned and operated by a single entity, such as the University of Minnesota and numerous hospital campuses. In contrast, several district energy systems serve multiple buildings owned and operated by varying

entities. The primary example in the city is the Cordia downtown system which provides heating (steam) and cooling (chilled water) services to much of the downtown core, connecting buildings via under-road pipes to numerous generating plants in downtown. District energy systems are not regulated in the same manner by the state as electricity and gas systems in Minneapolis are, providing the city with more flexible opportunities for decarbonization in collaboration with the system owners.

"[I want to see] 100% energy independent and food secure, walkable, peaceful."

— Survey respondent

What's Happening Now?

- **Minneapolis Clean Energy Partnership**, a collaborative approach that partners the City of Minneapolis in a unique way with Xcel Energy and CenterPoint Energy, its electric and gas utilities, to help the City reach its Climate Equity Plan and Energy Vision for 2040 goals.

Photo, below: solar panels project in Minneapolis.



2023 Climate Equity Plan

- City-owned building contracts with Cordia's downtown district energy system include carbon reduction targets.
- Minneapolis Green Cost Share program supports residential, commercial and industrial energy efficiency and solar energy build out in the city.

"I hope decentralized green energy, such as solar panels, are so common it becomes invisible, just as fire hydrants seem today."

— Survey respondent

Carbon Impact

GHG emissions from electricity and fossil gas consumption in the city account for 70% of our emissions. Of the 30% emissions reduction we have seen since 2006, nearly all of that progress (26%) is from cleaner electricity, which results from fewer coal plants and more solar and wind energy. 33% of electricity consumption in Minneapolis came from

renewable sources in 2021, and 60% came from carbon-free sources. This illustrates the large impact a utility energy provider can have on achieving the city's climate goals.

GHG Emissions from Electricity and Fossil Gas

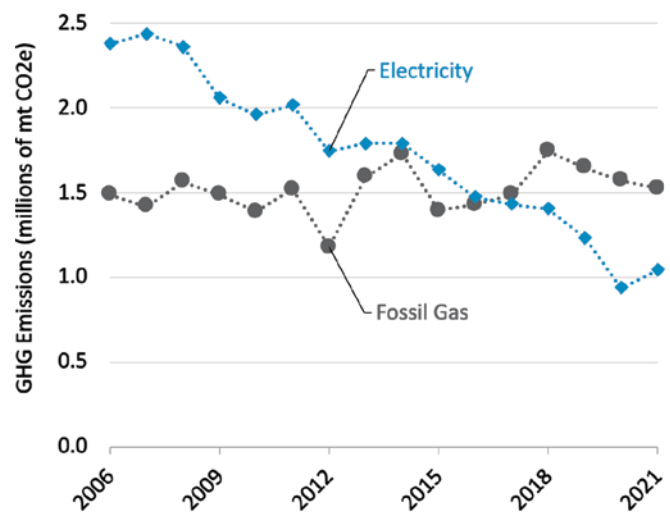


Figure 7.

GHG Emissions Scenarios for Electricity and Fossil Gas

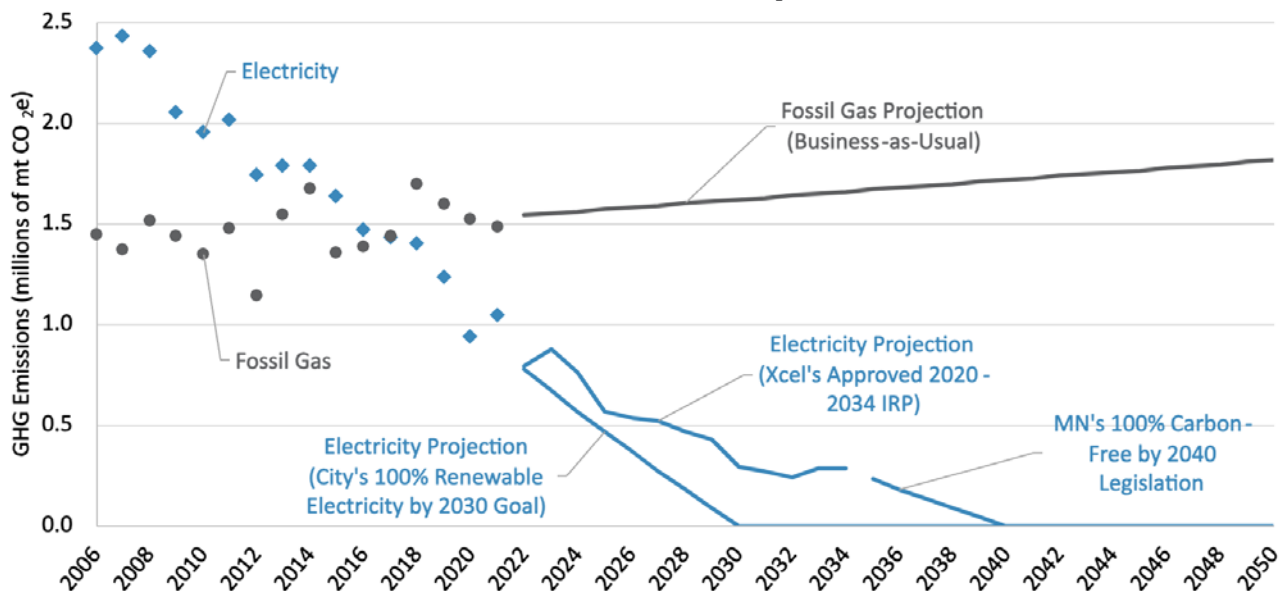


Figure 8.

Equity Impact

The city hosts a number of large energy generating facilities, including Xcel Energy's Riverside plant, Hennepin County's Hennepin Energy Recovery Center (HERC), and a number of district heating and cooling plants (such as Cordia's downtown district energy system). Though these facilities provide useful electricity and thermal energy to our community and others, they also are large emitters of GHG emissions and air pollutants in our city.

The costs of energy infrastructure are borne by energy users, often with disproportionate impacts on low-income users. As these energy utilities and their systems transition to providing cleaner and eventually carbon-free energy, the costs of that transition will be spread upon energy users and consideration should be given to whom should bear what costs.

Planning Considerations

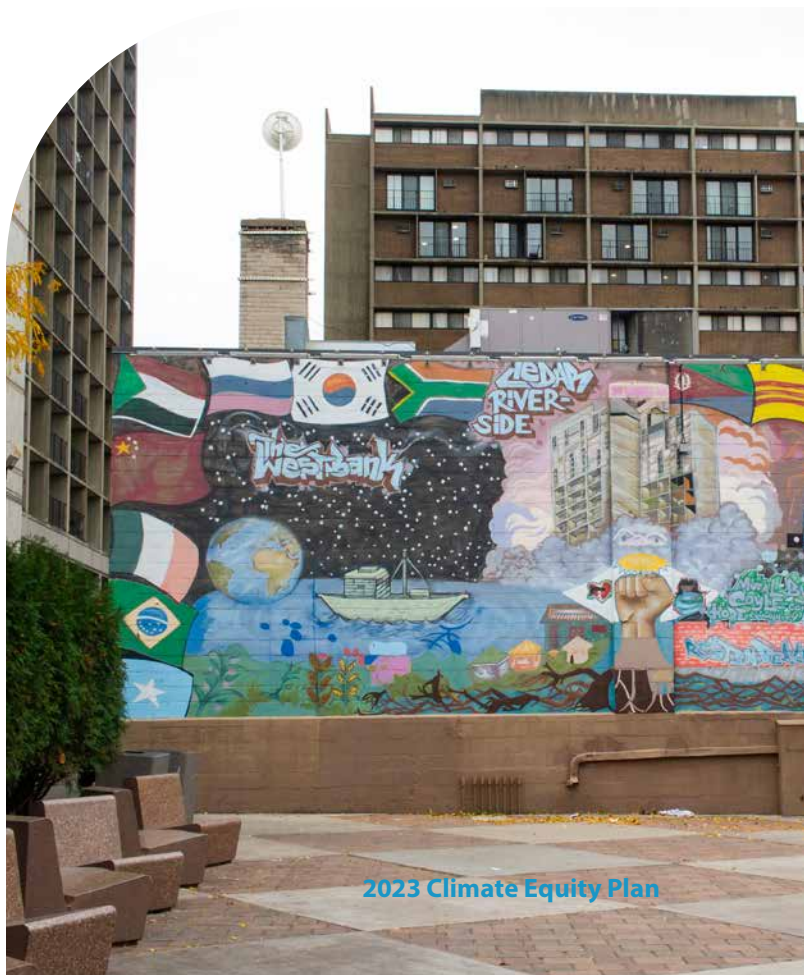
- Transitioning our energy systems to carbon-neutral will likely involve a large amount of investment in and building of infrastructure. Our community will likely need to bear some of these costs and disruption during the transition period.
- Minnesota will likely achieve 100% renewable electricity multiple years before achieving 100% renewable electricity, thanks to the substantial existing nuclear generation from Xcel Energy. Progressing from entirely carbon-free to entirely renewable electricity will require substantial additional resources and not result in additional GHG emissions reductions, though other benefits may be realized. Those additional resources may be better deployed toward reducing fossil gas consumption, which would result in impactful GHG emissions reductions.

Multi-family homes in Cedar Riverside, photo by Annie Wang, courtesy of Meet Minneapolis.

- Due to state law granting exclusive, regulated monopoly rights to Xcel Energy and CenterPoint Energy for their respective energy services, the city has more limited influence on their operations and systems than we possess in other parts of this Plan. This energy transition currently requires forward-thinking and change-oriented collaboration between the City and the utilities.
- District energy systems operate in a less regulated space than the electric and gas utilities, but the infrastructure impacts from their energy transition may be just as large.

"[I want to see] city-led effort to support homeowners, shop owners and apartment building owners to electrify their entire properties."

— Survey respondent



Strategies & Actions

Strategy ENS.1. Reduce emissions from fossil gas citywide by 35% by 2030 by working with Centerpoint Energy to reduce gas system GHGs.

Lead(s): SHHE, CenterPoint Energy

Action ENS.1.1. Program: Track, measure, and reduce methane gas leakage from gas infrastructure (in a geography as granular as possible) via cooperative efforts with CenterPoint's existing leak detection and operation procedures and via other innovative, emerging solutions.

Action ENS.1.2. Policy: Participate in policy-making and regulatory convenings (such as NGIA deliberations) on emerging gaseous alternatives to fossil gas, advocating for sound deliberations and decision-making regarding both climate and health impacts.

Action ENS.1.3. Policy: Prioritize entirely electric and/or district thermal infrastructure over new replacement gas infrastructure.

Action ENS.1.4. Process: Work collaboratively with stakeholders, such as trade unions, businesses, community organizations, tribal communities, and utilities to consider and plan for the impacts on all energy systems when reducing gas system throughput and developing carbon free district energy systems.

Strategy ENS.2. Reduce GHG emissions intensity factors 20% by 2030, 40% by 2035, 60% by 2040, 80% by 2045 and achieve net-zero by 2050 (against a 2018 baseline year) for existing district energy systems. *Lead(s): SHHE, Public Works, Cordia, Hennepin County, University of Minnesota and others*

Action ENS.2.1. Process: Formally partner with Cordia to plan and coordinate the decarbonization of their downtown district thermal system and collaborate with other district customers.

Action ENS.2.2. Process: Convene a space for regular coordination and planning of all the city's district and campus energy systems and their decarbonization plans (Cordia downtown, Hennepin County downtown, U of M, hospitals, others).

Action ENS.2.3. Process: Partner with district energy systems and Xcel Energy to ensure all district energy electricity use is 100% renewable by 2030.

Strategy ENS.3. Require that new district energy systems are either A) carbon-neutral or B) built nearly carbon-neutral and designed to operate carbon- neutrally no later than 2030. *Lead(s): SHHE, Public Works*

Action ENS.3.1. Process: Sponsor a planning study that geographically analyzes building thermal loads (existing building size and space type), master planned areas (future buildings and construction areas), and thermal energy availability (waste heat, aquifer, wastewater mains, other) to evaluate the technical and economic potential and allow optimized targeting of new district systems.

Action ENS.3.2. Policy: Use planned street improvements and around George Floyd Square development to support Sabathani Center District Energy Plans and 38 Street Thrive Master Plan.

Action ENS.3.3. Program: Support Towerside District Energy.

Action ENS.3.4. Pilot: Support Resilience Hubs, solar + storage, advanced microgrids and ground source district energy systems at Northgate Training center, Sabathani Community Center, and the Minneapolis American Indian Center.

Action ENS.3.5. Pilot: Pilot additional resilience hubs that utilize micro-grids to support one or more users, balance loads, and allow islanding by pairing on-site solar generation with battery storage.

Action ENS.3.6. Process: Work with local and state regulators to reduce regulatory barriers for new, emerging, and innovative energy systems.

Action ENS.3.7. Process: Partner with Metropolitan Council to examine ways to use wastewater as a source for heating and cooling as proposed in Towerside.

Strategy ENS.4. 100% Renewable Electricity Citywide by 2030 by collaborating with Xcel Energy to accomplish targets of 60% from system renewables (grid mix), 30% from distributed local solar (such as Solar*Rewards), and 10% from utility-scale subscriptions (such as Renewable*Connect green tariff). *Lead(s): SHHE, IGR, Xcel Energy*

Action ENS.4.1. Policy: Work with Xcel Energy to equitably increase reliability, resiliency, capacity, and renewable-content of the electric system.

Action ENS.4.2. Program: Explore with Xcel Energy avenues for opt-out green tariffs as the standard service for Minneapolis electricity customers.

Action ENS.4.3. Policy: Expand engagement at the PUC, state legislature, and state agency processes to promote policy and incentives that reduce barriers to local, distributed solar expansion.

Action ENS.4.4. Program: Actively promote, pair, and incentivize solar for under- and un-utilized large roofs within the city, including policy changes for full solar build-out on low electricity consuming buildings.

Action ENS.4.5. Policy: Participate and Intervene in Integrated Resource Plan, rate case and other dockets that support the Minneapolis Climate Equity Plan.

Action ENS.4.6. Program: Reduce barriers for Low Income Residents to access Community Solar Gardens.

Action ENS.4.7. Program: Expand Green Cost Share Programs to support more residential and commercial local rooftop solar projects.

Action ENS.4.8. Policy: Support continuation of Xcel Energy's Solar*Rewards Program through 2030.

Action ENS.4.9. Program: Maximize Inflation Reduction Act (IRA) Solar tax credits through outreach and promotion.

Action ENS.4.10. Program: Expand access to low and no cost financing through a state or local green bank.

Action ENS.4.11. Program: Provide on-going support for community based organizations to increase access to renewable energy opportunities.

Action ENS.4.12. Policy: Promote residential bulk purchasing (“group buy”) solar energy campaigns.

Strategy ENS.5. Ensure all franchise relationships between the City and energy utilities align with the city’s climate and energy goals. *Lead(s): SHHE, City Attorney, Xcel Energy, CenterPoint Energy*

Action ENS.5.1. Process: Partner with the energy utilities to establish a franchise fee structure that promotes both conservation and GHG emission reduction, and utilizes additional revenue for accelerated, equitable climate action.

Action ENS.5.2. Process: Negotiate energy utility franchise agreements that support the City’s Climate Equity Plan goals.

Minneapolis winter night, photo by Lane Pelovsky, courtesy of Meet Minneapolis.



Food and Zero Waste Circular Economy

GOALS:

1) Reduce the carbon and environmental impact of agriculture and food systems by purchasing 10% of foods which are grown in Minneapolis or produced in Minnesota or within 250 miles using sustainable or regenerative agricultural practices by 2033.

2) Achieve a zero-percent growth rate in the total waste stream from 2010 levels through a culture of reduced consumption and repair/reuse by 2030.

3) Recycle and compost 80% of citywide waste by 2030.

What Is a Circular Economy?

A circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products as long as possible. Informed by the Minneapolis Food Vision and the Zero Waste Plan, a circular economy can achieve our accelerated carbon offset goals and make Minneapolis more sustainable, equitable, and resilient.

What's Happening Now?

Home Grown Minneapolis just completed a Food Vision Plan that strengthens ties to sustainability through local food growing and production as well as looking for ways to reduce food waste and support a healthy diet.

Here are some of the activities the City is currently supporting:

- Minneapolis farmer's markets supported 1,280 jobs and donated 62% of leftover produce to Hunger programs in 2022. [farmersmarketsofmpls.org/by-the-numbers]
- Zero Waste Plan was adopted in 2017.
- Minneapolis Food Vision was adopted in 2023.
- The City of Minneapolis has 20 active farmers markets, important sources of local food.
- Twin Cities Co-op Partners and The Good Acre connect small-medium farms to large buyers.
- Minneapolis Public Schools sources 25% of their food from local producers.
- City provides over 60 City-owned lots for community and market gardens via its Garden Lease Program.

Currently in Minneapolis:

1.7%
Of Citywide GHG Emissions in 2019

17,263
Tons of Recycling in 2019

5,775
Tons of Organics/Yard Waste in 2019

12,076
Tons of Landfill Waste in 2019

+26%
Change in Total Solid Waste Handled Since 2013

- The City has piloted two passive solar deep winter greenhouses to grow more food in our city during winter months with a low-carbon footprint (Center for Sustainable Building Research, Tamales y Bicicletas and Appetite for Change).
- Funding TC Food Justice and Camden Promise to help support their food rescue programs.
- Partnerships with Hennepin County to support waste reduction, reuse, recycling programs and provide options for residents to properly dispose of household hazardous waste.
- Continuous monitoring of the waste stream and evaluate new programs and education needed to increase diversion of materials from the trash.
- Increasing awareness and access to programs and information by translating materials into languages commonly spoken in Minneapolis.

“I am glad to have yard waste pick-up and organics composting as part of the solid waste program because it was hard to compost in my yard.”

— Survey respondent

Climate Impact

Our current greenhouse gas emissions calculation doesn’t account for the majority of greenhouse gases from food and materials, except for a small portion that is disposed of in landfills. Emissions from the HERC, the waste-to-energy facility, are not included in the Waste section of the inventory because they arise from an electric generating facility. The emissions from HERC are instead included in the Electricity sector emissions. It is widely known that the majority of GHG waste emissions are from the production and transportation of food and products. Only a minimal amount of a food’s or a product’s total GHG emissions are attributed to disposal. To reduce emissions and

impacts and subsequent waste, we look to a circular economy that prioritizes waste reduction, reuse, repair, recycling and composting.

Globally, wasted food generates 10% of greenhouse gas emissions; if food waste was a country, it would be the third highest emitter of greenhouse gases. By simultaneously addressing local food systems and waste, we can work towards a circular economy where edible food is eaten and materials are managed at their highest and best use.

Equity Impact

Almost all garbage in the City goes to Hennepin Energy Recovery Center where it’s burned for energy. The 2022 Waste Characterization & Capture Rate study found that only 33% of what’s in the trash belongs there — the remaining 67% could have been diverted — creating more local green jobs and reducing environmental impact.

In order to stop trash burning at the HERC in Minneapolis and its negative effects on environmental justice communities, we need to eliminate our trash and plastics by 80%.

“[A new] housing complex destroyed our garden where we gathered to share crops, cook meals and preserve food for the winter, eliminating a community gathering space that was used for fellowship and wellbeing.”

— Lao Community Member

Planning Considerations

Wasted food not only costs households money (buying food they don’t eat), but also results in significant loss (energy, water, etc.) spent to grow, process, transport the food. Wasted food and food scraps alone make up 31% of what’s in the trash. Diverting these for composting is crucial. Our topsoils are depleting faster than they can naturally be replenished. We need the nutrients from our wasted

food and food scraps to be returned to the soil through composting to be able to continue to grow healthy local food.

This plan envisions a Minneapolis that prioritizes waste reduction, reuse, recycling and organics management and enhances local production — especially our food system — and is regenerative for the benefit of all who live, work, and play in Minneapolis. Currently, our economy is built on extracting and disposing of resources from the Earth. This linear process is harmful to Minneapolis residents, the Earth, and

future generations. The single-use, convenience-based, consumerism nature of our current economy emits tons of greenhouse gas emissions related to the creation, transportation, and consumption of food, goods and materials.

“[I hope to see] zero waste systems established and practiced for recycling and composting, and the supply chain transformed to support a no waste city.”

— Survey respondent

Strategies & Actions

Strategy FZW.1. Make land available and support year-round growing for sustainable and locally sourced whole foods. (MFV). *Lead(s): Homegrown Minneapolis, CPED*

Action FZW.1.1. Policy: Increase land security for urban agriculture by offering long-term leases via a simple process.

Action FZW.1.2. Pilot: Explore selling City-owned land for uses as community and market gardens, and explore agricultural easements to preserve urban agricultural space in the city. (2040 Policy 65, Action Steps K & I).

Action FZW.1.3. Policy: Expand areas of allowable land use for commercial agriculture uses.

Action FZW.1.4. Policy: Explore and support technical and design solutions for rooftop gardens. (2040 Policy 65, Action Step C).

Action FZW.1.5. Policy: Allow growing of edible produce on boulevards for personal use.

Action FZW.1.6. Program: Provide resources for remediation of soil contamination, including use of biochar enriched compost.

Action FZW.1.7. Policy: Simplify the permitting process and reduce other barriers for year-round or season extending growing structures such as hoop-houses and greenhouses.

Action FZW.1.8. Pilot: Explore feasibility of and incentives for innovative, energy efficient indoor growing.

Action FZW.1.9. Process: Ensure more food grown and made by nearby food and farm entrepreneurs is available across the city (MFV).

Action FZW.1.10. Policy: Increase purchasing of locally and sustainably grown foods by institutions and businesses within the city (MFV) by promoting adoption of Good Food Purchasing policies. The Good Food Purchasing Program provides a metric based, flexible framework that encourages large institutions to direct their buying power toward five core values: local economies, environmental sustainability, valued workforce, animal welfare and nutrition.

Action FZW.1.11. Policy: Decrease regulatory and logistical barriers to selling local food (MFV) and advocate for policy changes at the state and federal level.

Action FZW.1.12. Program: Provide financing mechanisms and business development support to facilitate connections between local production and local consumption (MFV). Any financing tool provided should focus on business owners who do not have easy access to credit.

Action FZW.1.13. Program: Continue CPED and Green Cost Share funding for small business renovation incentives to support healthy foods at local food retailers/grocers, such as upgrades to refrigeration and freezing equipment.

Action FZW.1.14. Policy: Support and promote use of healthy food incentives such as Veggie RX and Market Bucks to make whole, healthy and locally grown foods more affordable to Minneapolis residents.

Action FZW.1.15. Policy: Increase education and enforcement of the existing Staple Foods Ordinance and regularly solicit feedback from impacted businesses.

Photo, above right: North End Community Garden, from Minneapolis Garden Lease Program video.

Action FZW.1.16. Policy: Establish policies, including financial incentives, and expand programs to ensure edible food is managed at its highest and best use with reduction of wasted food, preservation, food-to-people and food-to-animal programs prioritized before composting or anaerobic digestion. (MFV).



Action FZW.1.17. Process: Continue studying ways to best achieve health, environmental, economic, equity, and justice outcomes (MFV) related to local, sustainable, and regenerative agricultural practices, based on input from community and with clear plan to implement those learnings over time.

Action FZW.1.18. Policy: Identify potential metrics and data collection to create benchmarks/baselines regarding food grown locally and purchased by institutions and businesses in Minneapolis.

Strategy FZW.2. Support a zero waste circular economy. *Lead(s): Public Works Solid Waste and Recycling, IGR, CPED*

Action FZW.2.1. Program: By 2025, conduct a large public education and behavior change campaign promoting waste reduction and conscious consumerism - connecting consumerism to the climate emergency.

Action FZW.2.2. Program: Work in partnership with Hennepin County and reuse stakeholders to increase opportunities and awareness for people to reuse, repair and donate household goods, furniture, appliances, electronics, building materials, and more. This includes but is not limited to promoting exchange sites and events, donation centers and events like Hennepin County's Fix-It Clinics and permanent fixer spaces.

Action FZW.2.3. Policy: Implementation of the Right to Repair law which passed the state legislature in 2023. Support removal of exceptions/exemptions from the new law.

Action FZW.2.4. Policy: Amend City ordinance, Chapter 282: Donation bins, to remove barriers for donation bins to be placed throughout the city. Provide resources and incentivize businesses to host donation bins.

Action FZW.2.5. Program: Dedicate time and resources from CPED and the Small Business Team to support businesses and increase workforce development opportunities to repair and sell used items.

Action FZW.2.6. Program: Work in partnership with Hennepin County to establish a local innovation hub for businesses to repair and reuse items and develop new markets for discarded and recyclable materials.

Action FZW.2.7. Policy: Adopt environmentally preferable policies and develop programs to best manage and maintain our built environment by 2030.

Action FZW.2.8. Policy: Preserve building stock by funding programs to rehab and bring older well-built buildings up-to-code and/or move structures to prevent demolition.

Action FZW.2.9. Policy: By 2025, amend City building permit requirements and incorporate incentives to promote and increase feasibility for salvage and deconstruction of all structures.

Action FZW.2.10. Policy: By 2027, evaluate a City ordinance that sets minimum diversion requirements (reuse and recycling) for all building demolitions and development projects over 1,000 square foot in size.

Action FZW.2.11. Program: Provide ongoing support and education for farmers, home growers, food establishments, and other parties to better enable them to harvest, process, store and donate edible food (MFV).

Action FZW.2.12. Policy: Introduce policy changes to improve connections between excess food and those in need (MFV).

Action FZW.2.13. Process: By 2035, work in partnership with Hennepin County to establish a baseline of wasted food and food scraps disposed of as garbage.

Action FZW.2.14. Program: Support, promote and expand Hennepin County's wasted food reduction, food preservation and donation grant program.

Strategy FZW.3. By 2030, ensure all residents and businesses have access to recycle. *Lead(s): SHHE, PW Solid Waste and Recycling, CPED, Regulatory Services*

Action FZW.3.1. Program: Continue to educate all who live, work, and play in Minneapolis about recycling, the recycling process, and economic and environmental impacts of recycling. Promote Hennepin County's free assistance, resources and grants to add or improve waste and recycling programs.

Action FZW.3.2. Policy: By 2027, make it mandatory for City serviced properties to participate in the recycling program.

Action FZW.3.3. Policy: By 2028, amend rental licenses to require all multi-unit buildings to submit recycling plans regularly as part of the license renewal process, and amend multi-unit recycling ordinance to identify minimum volume requirements for recycling.

Action FZW.3.4. Program: Actively enforce recycling at all residential and commercial buildings and food establishments by any and all City inspectors authorized to perform enforcement activities (CPED, Regulatory Services, Health Department, and Solid Waste & Recycling).

Action FZW.3.5. Process: Partner with Hennepin County to continue improve the ability for residents to properly manage household hazardous waste (HHW) and other non-traditional recyclables close to their home. This includes supporting the County's HHW drop-off events and encouraging and supporting local businesses to be drop-off sites for various items (e.g. bulbs, batteries, paint, motor oil).

Strategy FZW.4. Eliminate single-use conventional oil-based plastics and promote and support the reduction of all single-use items including bags, take-out containers, cups, straws, and utensils used by food establishments and for City internal and public events by 2025. *Lead(s): SHHE, IGR, PW Solid Waste and Recycling and Hennepin County*

Action FZW.4.1. Policy: Work with Legislators on the repeal of MN Statute 471.9998 and add it to the City's Legislative Platform in 2023 or 2024. (Source: Hennepin County Zero Waste Plan).

Action FZW.4.2. Policy: Following the repeal of MN Statute 47.19998, amend the City's Bring your own Bag (Chapter 205 Article VII) to prohibit distribution of oil-based carryout bags and encourage reduction in paper carryout bags.

Action FZW.4.3. Policy: Update the Green to Go ordinance requirements (Chapter 204—Title 10) in 2023 or 2024 to further restrict distribution of unnecessary oil-based single-use plastics. Pair the update with continued education/enforcement for businesses around the ordinance. Focus outreach and assistance in the Minneapolis Cultural Districts and with BIPOC-owned restaurants in transitioning to non-foam, non-plastic products. Support for restaurants may come from the Minneapolis Small Business Team, Environmental Health, business-serving organizations, and neighborhood organizations.

Action FZW.4.4. Program: Work with distribution and restaurant supply companies to increase availability, accessibility and use of plastic-free and certified compostable plastic packaging options for food establishments.

Action FZW.4.5. Policy: By 2025, update the City's Environmental Purchasing Policy to reduce, restrict and in some cases eliminate single-use oil-based plastics and other items in City operations. Provide adequate accommodations for individuals with disabilities who require these items.



Strategy FZW.5. By 2035, increase diversion of compostable materials from the trash. *Lead(s): PW Solid Waste and Recycling, SHHE, Regulatory Services, CPED*

Action FZW.5.1. Program: Continue outreach and education around organics recycling and composting. Partner with neighborhood and community organizations and leaders to continue to encourage organics recycling program participation by Solid Waste & Recycling customers. Promote Hennepin County's multi-unit and commercial recycling grants to add or improve organics recycling programs.

Action FZW.5.2. Process: Evaluate mandatory organics program participation for City serviced properties to start in 2040.

Action FZW.5.3. Process: By 2025, allocate resources and hire a consultant to research organics recycling programs in multi-units in efforts to develop a minimum threshold requirement for when landlords are required to provide organics to their tenants.

Action FZW.5.4. Policy: By 2025, support Hennepin County Ordinance 13 requirements by adopting an ordinance requiring certain food generators to divert food scraps from the trash. Provide additional resources and support to come into compliance.

Action FZW.5.5. Process: By 2030, evaluate the feasibility of a residential yard waste drop-off site for materials not accepted through the yard waste collection program.

Action FZW.5.6. Policy: Support changes to the State Food Code for individuals and businesses to increase use of reusable containers at food establishments. Small Business Team and Health Department staff shall promote the benefits of switching from single-use to reusable containers and funding and programs available for businesses to reduce waste.

Action FZW.5.7. Process: Work in partnership with Hennepin County, the State of Minnesota and other stakeholders on the adoption of extended producer responsibility (EPR) and other laws (e.g., mattress EPR, packaging and printer paper EPR, carpeting EPR), that will hold manufacturers accountable for the production and disposal of safe (non-toxic) items that can be reused, repaired, recycled, or composted at the end of their lifetime.

Green Space & Trees

GOALS:

- 1) Increase the quality and quantity of green space.
- 2) Make greenspaces accessible, welcoming and supportive for all community members.

What is Green Space and Parkland?

Throughout the Plan, green space represents City-owned and maintained green space along roads ways and city maintained infrastructure. Parkland refers to the Minneapolis Park and Recreation Board (MPRB) who own and operate the parks, lakes and trails.

Taken together, green space and parkland are part of the identity of the City. As we are mindful about our relationship with nature, we can broaden our understanding to think beyond green space as just parks. Green space and parkland can be defined as grass, trees and other vegetation that can be enjoyed for both recreational activities and aesthetic purposes. Studies have shown that our connection to the natural green environment improves our mental wellness. Even in an urban environment, connection to the outdoors can be found in pocket parks, boulevards, bee pollinator gardens, and tree canopy over neighborhood streets and through our highly rated Minneapolis park system.

"I feel hope whenever I see a thriving community garden."

— Survey respondent

Photo, above right: Native landscaping in City of Minneapolis infrastructure project.



What's Happening Now?

- Public Works requirements for green space, native landscaping, and stormwater infiltration in transportation infrastructure projects
- Increase in planting of street trees with a priority on Green Zones
- Incentives to plant trees on private property
- MPRB Implementation of the Ecological systems Plan. [minneapolisiparks.org/_asset/qs5fod/eco_sys_plan_poster.pdf]

Climate Impact

While other categories in this plan produce carbon emissions, green space actually absorbs carbon and holds it in its roots, trunk and branches. There is currently no quantitative measurement for the impact that green space in Minneapolis has on reducing carbon emissions, but it has been studied on smaller scales and in other cities. Some obvious benefits of parkland and green space include providing shade and filtering pollutants. There are other subtle ways that green space can also improve our environment and increase resilience to extreme weather events. For example, increased vegetation can help to manage storm water runoff and decrease the heat island effect. In fact, soil absorbs three times as much carbon as vegetation and the added mixed in use of biochar, our recycled tree waste, remediates the soil. By enhancing our public realm with various types of green space, carbon is sequestered, or stored, removing it from the atmosphere and helping to reduce global warming.

"I hope our community takes the issue of climate change seriously, where it matters most. I want my kids to be able to enjoy the Creek and lake like I used to growing up. To not fear for damaging winds or lightening strikes with increased strong storms."

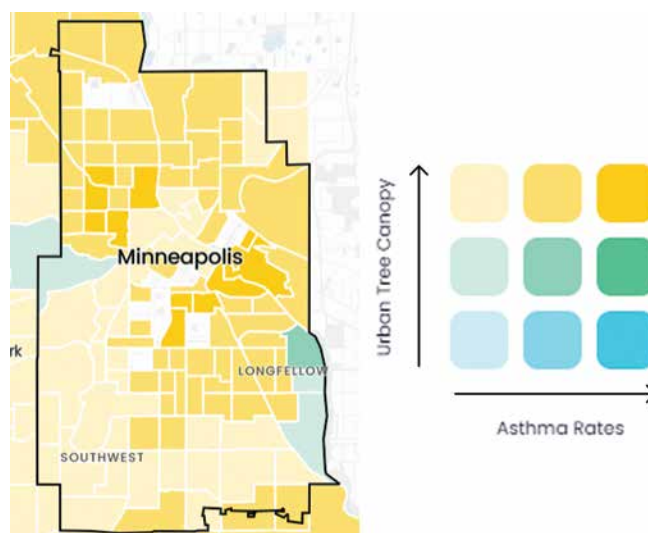
— Survey respondent

Equity Impact

These actions to increase green space in our city also addresses climate equity. Prioritizing planting trees in areas where there is minimal tree coverage ensures better air quality. This is a contributing factor to reducing health related issues like asthma. Providing tree coverage along transportation corridors that have often disconnected marginalized communities will have similar impacts as well as bring lasting beauty. Green space offers opportunities for community gardening where citizens gather socially and grow culturally relevant food. Many citizens name these activities as important to community wellbeing and livelihood with additional benefits of replenishing the land. This is essential to restore healthy soil to communities with contaminated soils.

Green space delights us all. Without access to nature, many of us are depleted from the lack of fresh air to the bright sunlight. During the pandemic, the outdoors became our second space for living, recreating, being safely with others. Simply stated, it heals our souls.

Asthma Rates and Urban Tree Canopy



Median percentage of adults with asthma, crossed with percentage of census tract covered by trees. Source: Greenlink Equity Map.

"I want to see] more green space that's safe; kids have to go somewhere else to play because of the violence."

— Little Earth Community Member

"One Park is not enough, [we need] more green space to play to prevent youth from using drugs and alcohol and for community safety."

— Somali Community Member

"Community garden—housing complex destroyed our garden where we gathered to share crops, cook meals and preserve food for the winter; eliminated a community gathering space that we used for fellowship and wellbeing."

— Lao Community Members

Planning Considerations

The need for green space must be balanced with density (a strategy that reduces per capita carbon emissions) as Minneapolis grows. Types of green space must be balanced. For example, a community garden, stormwater feature, or recreation space. Public safety is also critical for people in all neighborhoods to be able to enjoy green space.

Needs:

- Funding for maintenance of green space, not just initial installation
- Planting of trees should happen where they can thrive in community—street trees have a high rate of dying

Photo, right: People walking in Lake Nokomis. Photo by Lane Pelovsky, courtesy of Meet Minneapolis.



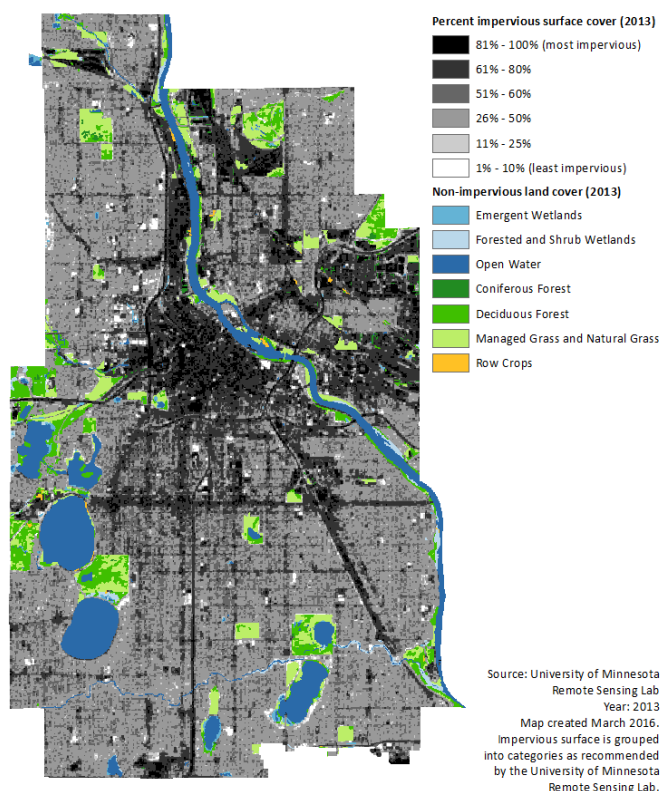
Strategies & Actions

Strategy GST.1. Increase quantity of green spaces and parkland. *Lead(s): SHHE, MPRB, Public Works*

Action GST.1.1. Program: Increase the amount of green space on city right-of-way and city-owned property. Partner with Minneapolis Park & Recreation Board (MPRB) to prioritize areas with higher levels of impervious area and provide funding in Green Zones.

Land cover

Impervious and non-impervious surface cover



Source: University of Minnesota, Remote Sensing Lab, 2013.

Action GST.1.2. Policy: Provide a net increase in green space on public redevelopment and reconstruction projects.

Action GST.1.3. Process: Conduct public tree preservation and replacement best practices.

Action GST.1.4. Process: Achieve net increase in Right of Way (ROW) trees on transportation projects by planting 2 trees for every tree removed annually. Report tree loss and replacement from transportation projects.

Action GST.1.5. Policy: Preserve existing ROW trees with a priority of 1 and 2 during road projects using Tree Preservation Priority Ranking system.

Action GST.1.6. Program: Conduct analysis to map available locations for tree planting and identify new locations for trees. Develop a plan with guidelines to modify ROW designs to accommodate more trees in new locations.

Action GST.1.7. Program: Partner with and support Minneapolis Park & Recreation Board (MPRB) and Green Minneapolis efforts to fund 200,000 new trees in Minneapolis by 2030.

Action GST.1.8. Process: Evaluate the use of the Green Cost Share program to fund stormwater treatment such as green roofs, conversion of impervious (paved) surfaces to vegetated, increase density of plantings in urban ROW. Prioritize resources in the Green Zones, especially BIPOC households and rental properties.

Action GST.1.9. Program: Coordinate with watershed organizations to expand incentives and resources for new green spaces.

Action GST.1.10. Policy: Require reconstructed boulevards to be recessed by 2024. Establish standard detail in 2023 and communicate requirements to PW and CPED for incorporation in their guidelines. Partner with outside entities to help adjacent properties lower and replant boulevards with sustainable landscaping while prioritizing current tree protection..

Strategy GST.2. Increase the amount of and support for land dedicated to urban agriculture (including growing food, supporting habitat, soil health, etc.) with a targeted increase in Green Zones, Black, Indigenous, and communities of color, and neighborhoods with higher levels of impervious. *Lead(s): MPRB, Homegrown Mpls, SHHE, CPED*

Action GST.2.1. Policy: Explore using City-owned land for uses as community and market gardens, including resources for remediation of soil contamination, and explore long-term agricultural easements to preserve urban agricultural space in the city for groups from underrepresented identities in farming (immigrant/BIPOC farmers).

Action GST.2.2. Policy: Increase land security for urban agriculture by offering long-term leases via a simple process for groups from underrepresented identities in farming (immigrant/BIPOC farmers).

Action GST.2.3. Program: Increase access to materials, equipment, water, lighting, and other resources for growing food using sustainable production methods within the city (MFV).

Action GST.2.4. Policy: Protect and improve pollinator habitats and water resources (MFV).

Action GST.2.5. Process: Habitat corridors: Define wildlife goals, corridors, and planting guidelines through development of a wildlife corridor plan. Identify and coordinate with stewards and funding agencies to build corridors through public projects and private incentives.

Action GST.2.6. Program: Develop planting guidelines to complement and prioritize trees in the right of way.

Action GST.2.7. Program: Follow planting guidelines on new or reconstructed road projects in areas that have been identified as a habitat corridor (not to conflict with tree canopy in the right of way).

Action GST.2.8. Policy: Formalize and communicate policy (to public, regulatory services inspectors, and 311 operators) allowing and promoting native, pollinator-friendly, sustainable landscaping and food gardening on private property, boulevards, and other quasi-public spaces such as traffic circles and medians.

Action GST.2.9. Program: Improve training for public to help inform about opportunities and limitations for plantings (e.g. height limitations for safety in boulevards)

Action GST.2.10. Program: Improve training for regulatory services of “nuisance” violations that target pollinator and edible lawns (often due to height/visual appearance).

Action GST.2.11. Policy: Train regulatory staff to recognize pollinators/native plantings so that these are not cut down/made violations/removed etc (non-punitive and more educating citations).



Action GST.2.12. Program: Reduce public and private salt application through outreach, education, usage reporting/tracking, regulatory mechanisms, internal operations, and enforcement.

Action GST.2.13. Policy: Support state legislation to change the legal liability of private contractors if they go through the Smart Salt training and document the steps they are taking to stop over-salting.

Action GST.2.14. Process: Advance stormwater management for climate adaptation and equity.

Action GST.2.15. Process: Quantify benefits of impervious reduction, green infrastructure enhancement, and tree canopy / vegetation with respect to water quality needs and flood reduction goals.

Action GST.2.16. Process: Conduct needs analysis to determine climate action strategies that can be pursued under different types of infrastructure projects.

Action GST.2.17. Process: Identify and quantify benefits of vegetation practices, such as impervious reduction on stormwater management.

Action GST.2.18. Process: Use flood and water quality models to influence stormwater project implementation and to influence regulations.

Action GST.2.19. Process: Determine current practices or regulations that hinder or enhance climate adaptation strategies.

Action GST.2.20. Program: Continue to use equity metrics to identify and prioritize stormwater management.

Strategy GST.3. Increase the number of trees planted on private property through the City Trees program from 2,250 to 4,000 annually with a targeted increase in Green Zones, Black, Indigenous, and communities of color, and neighborhoods with lower levels of tree canopy through equitable distribution of funding and support. *Lead(s): SHHE, Community Partners*

Action GST.3.1. Program: Implement tree removal and replacement program for private property owners and renters where income levels impact ability to remove and replace private trees.

Action GST.3.2. Program: Increase use of biochar in public and private green spaces starting in 2024 to sequester carbon and increase soil health.

Action GST.3.3. Policy: Create guidelines for conversion and construction of vegetated portions of ROW projects that includes use of soil amendments (such as biochar/compost blend), tree planting, and pollinator / native plant use.

Action GST.3.4. Program: Report vegetation metrics on city projects to quantify the tree canopy change, impervious surface change, and stormwater management.

Action GST.3.5. Process: Annually analyze vegetation metrics by neighborhood and evaluate future projects to equitably distribute green infrastructure and greenspace in environmental justice/green zones.

Strategy GST.4. Make green spaces and parkland accessible, welcoming, and supportive for all community members. *Lead(s): SHHE, Public Works, MPRB*

Action GST.4.1. Process: Review regulations to identify barriers to city environmental policies and goals, including the 2040 plan vegetation and tree goals.

Action GST.4.2. Process: Review regulations for opportunities to improve equity.

Action GST.4.3. Process: Draft new or revise ordinances (Tree preservation and planting, Chloride application).

Action GST.4.4. Process: Develop an incentive through the Green Cost Share program to support the replacement of gas lawn equipment with electric.

Strategy GST.5. Improve education and engagement. *Lead(s): SHHE, MPRB*

Action GST.5.1. Process: The Health Department and MPRB each host or attend at least five community engagement events each year to learn about community / resident relationships with sustainable landscapes and educate people about sustainable landscapes, including trees, pollinators and native plantings.

Photos, opposite left: FLOW Northside Art Crawl Art Garden photo by Kobi Bannerman. Right, top to bottom: Open Streets Minnehaha 2022 by Andrew Dobin @ Northstar Imagery, West Broadway Open Streets by Rebecca Rabb. All photos courtesy of Meet Minneapolis.



Healthy Homes

GOALS:

1) **Ensure all 1-4 unit homes and apartments are adequately insulated and weatherized by 2040 starting with Green Zones.**

2) **Eliminate the number of households with a housing energy burden over 6% by 2030.**

3) **Begin transition to all electric homes.**

How Do Our Homes Use Energy, and Why Does That Matter?

Our homes primarily use electricity and fossil gas for heating, cooling, ventilation, lights, appliances, and plug loads — basically everything we plug into our walls. The most promising pathway to reduce emissions from residential energy use is to significantly transition from fossil gas use to renewable electricity.

There are approximately 88,000 1-4 unit homes in Minneapolis, of which nearly 14,000 are rental properties. Our building stock is relatively old, with many homes built before the Great Depression (pre-1930). Having many older homes means that there are many opportunities to update homes to today's standards. As of 2022, 38% of these buildings had inadequately insulated walls (meaning an R-Value of less than 5) and 66% had inadequately insulated attics (R-Value of less than 20).

Minneapolis homes depend heavily on fossil gas for energy use. About 90% use gas for space heating, 80% for water heating, 45% for clothes drying, and 25% for cooking. Lastly, less than 20% of these buildings have electric service of 150 Amps or greater, a critical

Image, right: Still from Episode 1: Introduction to Weatherization by the MN Department of Commerce.

threshold that allows homes to adequately power our increasing electrified lives or to support a rooftop solar array or EV charging.

What's Happening Now?

- Truth-in-sale-of-housing (TISH) Energy Reports.
- The multi-city Electrify Everything MN campaign.
- The Minneapolis Homes program is supporting the construction of 17 Passive House or Net Zero certified all-electric new construction homes.
- The City and Utilities provide Free Home Energy Squad energy audits.
- The City provides zero percent loans for efficiency and solar energy
- The City's Green Cost Share Program provides incentives for rooftop solar

Climate Impact

In 2021, home (1-4 unit residential) energy use was responsible for 23% of the city's overall greenhouse gas emissions, 36% of the city's fossil gas emissions, and 30% of electricity emissions. Energy use for apartments, townhomes, and condos within larger buildings (five or more unit residential) is accounted for in the Buildings & industry section of the Plan.

Equity Impact

Residential energy costs can be a large component of overall housing costs. The percent of household income spent on home energy bills is known as housing energy burden. In the Minneapolis



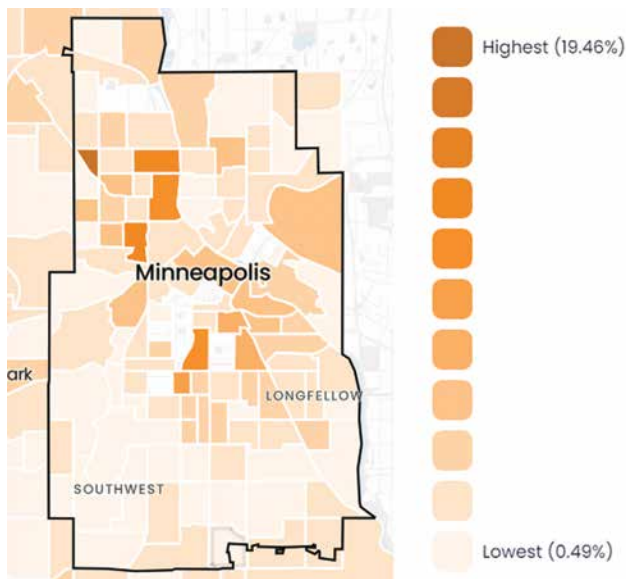
Metropolitan Area in 2017, 12% of households had a housing energy burden over 6% (considered a “high” burden) and 5,000 (5%) had a housing energy burden over 10% of their income (considered a “severe” burden). The average housing energy burden for the Minneapolis metropolitan area was 2.2%. Low-income, multifamily households, and older adults have the highest median energy burdens in Minneapolis. Additionally, 15% of Black households and 16% of Hispanic households have a high energy burden (above 6%).

“[In the future I hope] to see city-led effort to support homeowners owners to electrify their entire properties. It is also imperative that Minneapolis address environmental justice in a comprehensive way—blanketing the designated Green Zones with resources and housing upgrades.”

— Survey respondent

Planning Considerations

Minneapolis Energy Burden by Census Tract



Neighborhood Average shows the percent of median yearly income that households pay for utility bills (electricity, gas). Source: Greenlink Equity Map.

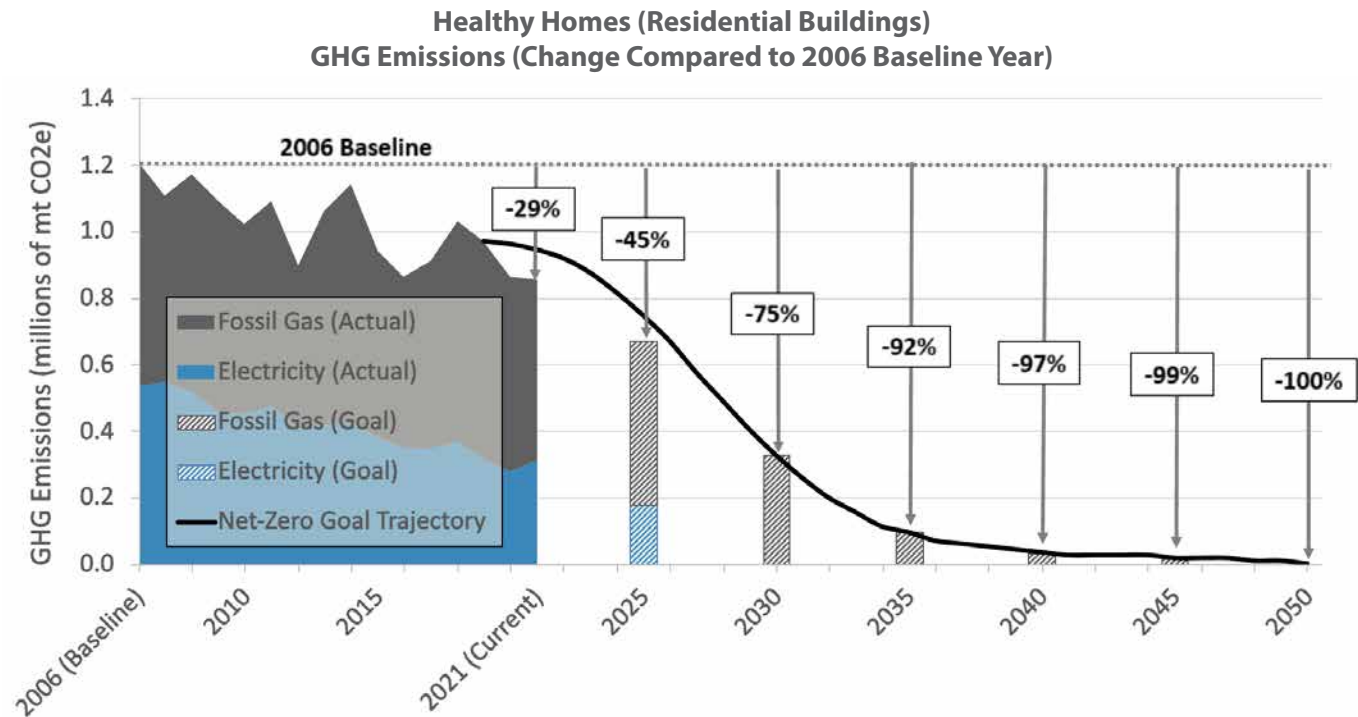
More efficient homes also have health benefits for residents - by being less drafty, having more comfortable and stable temperatures, and utilizing proper ventilation for improved indoor air quality. More efficient homes with lower utility bills are needed for low income renters as well as homeowners.

- The city has a great number of older houses that are inadequately weatherized. Prioritizing weatherization in the neediest buildings can provide immediate energy cost savings and pave the way for heating system electrification.
- After about a quarter of homes in Minneapolis are electrified, the existing electric system will require upgrades and other innovative solutions to meet the additional need.
- The labor requirements for the envisioned pace and breadth of home weatherization and electrification are significantly higher than the existing workforce available in these spaces—which presents both a hurdle and opportunity.
- Additional home electrification technologies are likely to be developed in the coming years, but waiting for perfect solutions can come at the expense of very good solutions (such as currently-available dual fuel home heating systems) that can reduce emissions today.
- Transitioning from gas to electric systems can often involve high upfront costs, particularly for middle-income and low-income residents. However, this transition can also often result in ongoing energy cost savings.
- As more vehicles become electric and most of them are charged at home, electricity costs will increase for many households. However, gasoline costs will decline at the same time, in most cases leading to

a reduction in overall energy costs (at the current prices for electricity and gasoline). This transfer of “transportation” energy costs into “housing” energy costs would increase the “housing” energy burden as currently defined, though a typical family will

be better off in terms of their overall budget. To account for this transfer of costs, modifications to the definitions of these metrics will be needed as the electric vehicle transition accelerates.

Goals



Healthy Homes (Residential Buildings)
GHG Emissions (Change Compared to 2006 Baseline Year)

Year	Electricity	Fossil Gas	Overall
2021 Actual	-42%	-19%	-29%
2025 Goal	-65%	-25%	-45%
2030 Goal	Carbon-Neutral	-50%	-75%
2035 Goal	Carbon-Neutral	-85%	-92%
2040 Goal	Carbon-Neutral	-95%	-97%
2045 Goal	Carbon-Neutral	-97%	-99%
2050 Goal	Carbon-Neutral	Carbon-Neutral	Carbon-Neutral

Figure 9.

Strategies & Actions

Strategy HEH.1. Coordinate with government agencies, community organizations and the private sector. *Lead(s): SHHE, CPED, Utilities, and Community-based organizations and businesses*

Action HEH.1.1. Program: Complete 3,000 wall insulation and 5,000 attic insulation and air sealing weatherization upgrades, starting in the Green Zones, by 2030.

Action HEH.1.2. Process: Convene a standing group of City staff who oversee home programs and initiatives to focus greater effort and coordination on weatherization, energy efficiency, and electrification.

Action HEH.1.3. Pilot: Begin whole home weatherization and low income rental properties retrofit pilots.

Action HEH.1.4. Process: Ensure that all of the city's new and ongoing energy-related incentive programs for Home Energy Squad visit buydowns, low and no-interest financing, bonus rebates, Lead and Healthy Homes programming, and others provide additional incentives to home weatherization projects, Green Zone households, and lower-than-median income households. External funding from Conservation Improvement Programs (CIP) and the federal Weatherization Assistance Program (WAP) provides for no-cost energy efficiency improvements.

Action HEH.1.5. Pilot: Work with partners to increase the rate of single-pane window retrofits, which often represent a dual opportunity for both increased energy efficiency and improved occupant health and safety (such as lead remediation).

Action HEH.1.6. Process: Collaborate with the utilities to streamline all city- and utility-influenced elements of the home weatherization and energy efficiency retrofit processes. Prioritize as a first step with CenterPoint Energy the home air sealing and insulation process (energy audits, contractor referrals and instant quotes, rebates, financing, pre-weatherization) to reduce barriers and dramatically increase projects annually completed by homeowners.

Action HEH.1.7. Process: Leverage neighborhood associations, community-based resources, and CenterPoint Energy's Community Profile Dashboard as key resources in delivering home energy awareness, behavioral approaches, and services in formats most impactful and motivating to individual communities.

Strategy HEH.2. Collaborate with Xcel Energy and CenterPoint Energy to increase the annual share of cooling system installations that are heating-capable heat pumps with a goal of 25% share by 2025 and 100% by 2030. *Lead(s): SHHE, Utilities, and Contractors*

Action HEH.2.1. Policy: Collaborate with the utilities and other partners to realize the recommendations of the Strategies for Equitable Energy Efficiency Program Design CARD project. In particular, provide better outcomes for low and middle incomes households by maximizing the number of households that get free energy upgrades from existing programs, offering rebates covering the full incremental cost of a conservation project, offering rebates at the time-of-sale from retailers and contractors, and educating and incentivizing trade allies to better promote energy efficient equipment.

Action HEH.2.2. Policy: Collaborate with the utilities and other partners to increase contractor awareness, acceptance, and promotion of dual fuel heating systems.

Strategy HEH.3. Begin transition to all-electric homes. *Lead(s): SHHE, Xcel Energy, CenterPoint Energy*

Action HEH.3.1. Process: Collaborate with Xcel Energy and other partners to accelerate adoption of electric, gas-replacing technologies in homes.

Action HEH.3.2. Program: Update TISH Energy Reports to identify gas and conventional electric resistance equipment in the home and encourage high-efficiency electrification, dual fuel heating systems, and carbon-free energy choices.

Action HEH.3.3. Process: Work in partnership with utility and other clean energy organizations to create a comprehensive home weatherization and electrification service that provides assistance that is substantially more customized, customer-focused, comprehensive, and long-duration than existing programs.

Action HEH.3.4. Pilot: Engage in an educational home electrification campaign in concert with other metro cities.

Action HEH.3.5. Pilot: Promote and incentivize end-of-life high-efficiency electrification for gas and electric resistance appliances and systems, particularly in instances when little or no supporting pre-work is required and occupants realize health and safety co-benefits (e.g. electric heat pump water heaters to replace gas and electric resistance units).

Strategy HEH.4. Ensure all households have a housing energy burden below 6% by 2030.

Lead(s): SHHE, IGR, Utilities

Action HEH.4.1. Policy: Advocate at the PUC and in other venues in support of efforts to assist energy-burdened customers and against factors that worsen their energy burden.

Action HEH.4.2. Policy: Advocate that any energy rate increases before the PUC primarily support progress toward the City's Energy Vision and Climate Equity Plan - furthering reliable, affordable, local, and clean energy services.

Action HEH.4.3. Program: Use future franchise fee alterations to reduce households experiencing high energy burden by utilizing rate design, conservation programs, and/or bill payment assistance.

Action HEH.4.4. Program: Devote city resources to help residents better connect to and utilize federal, state, local, and utility resources for energy conservation, energy production, and financial assistance.

Action HEH.4.5. Program: Expand staff support for the City to advocate in support of policies that reduce energy costs for low and moderate income families at regulatory and policy-making convenings, such as at the Public Utilities Commission (PUC), and State and Federal comment opportunities.

Action HEH.4.6. Pilot: Expand energy education and literacy throughout all communities to help ensure everyone is participating in a just transition.

Transportation & Complete Streets

GOALS:

- 1) Provide access to a variety of carbon-free transportation options that are safe, reliable and cost effective.
- 2) By 2030, 3 of 5 trips are taken by people walking, biking or riding transit.
- 3) By 2030: 25% of all cars registered in the City are electric.

Complete Streets are Safer for All

Minneapolis is on a mission to make it easier for people to walk, bike, and take transit to save money as well as addressing our climate emergency. Planning for and implementing transportation solutions that make it easier to walk, roll, bike and take transit is an opportunity to address inequities in our transportation system and help people thrive, community-wide. Public transportation has lower emissions per vehicle mile traveled than personal vehicles while walking or riding a bike has zero emissions. The Complete Streets policies were used to develop strategies for reducing climate pollution related to transportation. Complete Streets are designed to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are traveling as drivers, pedestrians, bicyclists, or public transit riders.

What's Happening Now?

- Implementation of the Transportation Action Plan
- Implementation of Complete Streets policy to design, operate and maintain our transportation networks
- Electric vehicle, bike, and scooter sharing and mobility hubs
- Vision Zero Safety Improvements

Climate Impact

In Minneapolis, transportation accounted for 24% of emissions in 2021, the largest sector after building energy use. If we can reduce emissions when we move around the city, we can make a big impact toward reducing overall city emissions while also reducing congestion and pollution from roadways. Emissions are calculated based on Vehicle Miles Traveled (VMT) and a state-wide average is applied to the percentage of those vehicle miles. A bus with lots of people produces less carbon than a car with a single driver, but someone walking, or biking produces zero emissions!

Equity Impact

The Minneapolis Transportation Action Plan was developed in consultation with community members to address the climate emergency by emphasizing low- and no- carbon travel and to correct historic injustices in our transportation system.

Input from the Transportation Working Group was supplemented by the Minneapolis Pedestrian and Bicycling Advisory Committees.

"I hope Minneapolis has an irresistible mass transit system efficiently moving Minneapolis residents all around the Twin Cities, EV charge stations replacing gas stations."

— Survey respondent





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"More dense, walkable complete neighborhoods."

— Survey respondent

"Safe, clean, family friendly. Less vehicle traffic, with more people regularly using public transit."

— Survey respondent

"I hope that my community genuinely feels built for and by people, rather than islands of activity divided by harsh traffic."

— Survey respondent

"Change needs to be a permanent solution, not electric cars. Solutions need to be futuristic, well-informed, and well-studied."

— Minneapolis High School Student

"Laotian community in North Minneapolis needs a community medical clinic and Asian food; Cub Foods does not carry the type of products that they would buy and grocery store with food they eat (Brooklyn Park or St. Paul) is difficult with no car; Bus ride can take 4+ hour to get food; Could reduce pollution by being able to walk to get groceries."

— Lao Community Member

"Walkers need benches around the city so they can sit and rest."

— Pedestrian Advisory Committee Member

"We need shade trees at bus stops to stay cool in the heat of summer."

— Pedestrian Advisory Committee Member

Planning Considerations

There was a repeated concern that some people don't feel safe in their neighborhoods and on public transit and that without a sense of public safety people will rely on their cars more than they otherwise would. This is why safety needs to be at the forefront of discussion as the City continues to partner with other agencies to improve options for people walking, rolling, biking and taking transit, we will collectively unlock benefits like healthier living, job creation, and cleaner air.

When people choose to drive in the future, electric vehicles will reduce GHG emissions and other pollution. The City fleet has a role too, and our employees have begun to drive electric cars and ride electric bikes while on city business. Minneapolis continues to modify local zoning policies related to parking in the 2040 Comprehensive Plan.

"We don't open our windows because of the increase in car traffic along Olson Memorial."

— Lao Community Member

Photos, previous pages: Downtown transit stations, courtesy of Metro Transit and Meet Minneapolis. Right: East Lake Street, Midtown Greenway by Paola Carlson-Sanchez, courtesy of Meet Minneapolis.





Strategies & Actions

Strategy TCS.1. Reduce Carbon Emissions through no carbon alternatives. *Lead(s): Public Works, IGR, Metropolitan Council, Hennepin County and MNDOT*

Action TCS.1.1. Process: Update the Minneapolis Transportation Action Plan GHG reduction goal, which is based on the original Climate Action Plan target of 80% emissions reduction by 2050. The new goal should meet the mayor's new science-based, fair share goal of net zero by 2050.

Action TCS.1.2. Program: Continue to support electrification of transportation, including but not limited to increasing e-bike and EV charging infrastructure and supporting Metro Transit's plans for electric buses, through state advocacy, local ordinances, and grant programs.

Action TCS.1.3. Policy: Expand public infrastructure to increase affordable, accessible, and convenient public transportation powered by local renewable energy, consistent with the 30% local renewable energy goal.

Action TCS.1.4. Process: Implement a fleet study and right-size the city's fleet while pursuing full electrification of the fleet, including cargo bikes, light-duty, medium-duty, and heavy-duty vehicles.

Action TCS.1.5. Policy: Support electrification of the Minneapolis Public School Bus Fleet by 2035.

Photo: Midtown Greenway by Hennepin County, courtesy of Meet Minneapolis.

Strategy TCS.2. Support implementation and continue working on existing plans and initiatives.

Lead(s): Public Works, CPED, Racial Equity, Inclusion and Belonging and Inclusion

Action TCS.2.1. Process: Continue to implement the 2030 Minneapolis Transportation Action Plan, which prioritizes climate action, safety, and equity.¹

Action TCS.2.2. Policy: Ensure the transportation budget aligns with and is adequate for executing the Minneapolis Transportation Action Plan so that the Plan's priorities are implemented.

Action TCS.2.3. Policy: Follow the Racial Equity Framework for transportation, which was developed in 2022 by Public Works with deep community input.

Action TCS.2.4. Process: Work interdepartmentally and with partner agencies to adopt anti-displacement measures in transportation planning.

Action TCS.2.5. Program: Build a local services grant program to sustain or increase access to walkable amenities 1) in areas impacted by redlining and 2) in neighborhoods that lack grocery stores and financial services.

Action TCS.2.6. Process: Update city zoning and land use policies to implement Minneapolis 2040 comprehensive plan goals and policies to reduce VMT, protect against displacement, and increase racial equity consistent with Complete Streets policies, affordable housing, clean air, health, etc.

Strategy TCS.3. Provide equitable access to electric transportation options for all Minneapolis residents. *Lead(s): Public Works*

Action TCS.3.1. Program: Increase access to EV charging for multifamily residents and residents with no off-street parking.

Action TCS.3.2. Program: Actively promote alternatives to car ownership such as bike share, EV car share, transit and other shared mobility.

¹ The Transportation Action Plan includes many strategies proposed by the Transportation Working Group for reducing VMT and GHG emissions, including but not limited to, Supporting electrification of public transit; Supporting EV carshare and shared micro-mobility services such as bikes, electric assist bikes, and scooters; Ensuring public EV charging infrastructure scales to service multiple vehicle types, including shared cars, bicycles and scooters; Exploring congestion pricing; Partnering in support of regional commuter rail; Pricing on-street parking meters to support multimodal goals; Managing off-street parking supply, demand and pricing downtown; Partnering to reduce single occupancy vehicle use; Conducting a Pedestrian and Bicycle Winter Maintenance Study on a biennial basis to evaluate and suggest changes to City-led snow and ice clearing, including evaluating City-led clearing of snow and ice on the Pedestrian Priority Network and prioritizing clearing snow and ice on the All Ages and Abilities Network, including trails and protected bikeways. The Public Works Racial Equity Framework includes consideration of an e-bike voucher program and anti-displacement policies.

Water

GOAL:

Clean and affordable municipal and sanitary wastewater systems that reduce GHG emissions and increase system resiliency.

Where Does Our Water Come From?

In Minneapolis, unlike energy, water services are provided by the City. Our water comes from the Mississippi River, is treated to very high-quality potable water by the City of Minneapolis in the Fridley treatment center. An average of 54 million gallons per day, or about 1 percent of the total river's flow is distributed via pumps and pipes throughout the City of Minneapolis (and to several surrounding cities as well). The water is used by homes and businesses and is returned to the river via the Pig's Eye water treatment plant operated by the Metropolitan Council. You can learn more about the process of treating water in Minneapolis in [this video](#).

What's Happening Now?

- Efforts to improve efficiency and power water treatment with renewable electricity.
- Partnerships with other agencies, including Metropolitan Council, for the protection of the water.

Climate Impact

The emissions related to water processing was 4% of total emissions in 2021. These emissions come from the City's Fridley water facility and treatment of wastewater at the Metropolitan Council Pig's Eye plant. Minneapolis currently is working to source all the energy used for treating and pumping drinking water from renewable sources such as on-site solar at the Fridley Treatment Plant. Currently, the water treatment plant is under agreement with Xcel for Renewable*Connect and

subscribes to community solar for 100% renewable electricity for operations, though fossil gas is currently used for heating the buildings.

Equity Impact

The water working group focused on the relationship of water security, climate change, and social equity within the municipal water and sanitary wastewater services. While these systems are associated with a small fraction of citywide greenhouse gas emissions, affordable access to clean water is a basic human need and must be affordable.

Planning Considerations

This section highlights climate resilient strategies with a focus on energy efficiency in the treatment and distribution of water sourced from the Mississippi River as well as water efficiency.

"I hope sustainable water practices and proper appreciation for water abounds."

— Survey respondent

"Education—teach kids how to turn off water when not using, rainwater reuse, turn off the lights, save water, efficient toilets."

— Lao Community Member

Photo, above: Fridley Water Facility, courtesy Oertel Architects, and next page: a Minneapolis water drainage pipe.



Strategies & Actions

Strategy WAT.1. Ensure that city facilities and infrastructure, across all neighborhoods, are models of energy efficiency and renewable energy technology by reducing GHG emission by 10% by 2030 without sacrificing water quality. *Lead(s): Public Works*

Action WAT.1.1. Policy: Prioritize neighborhoods with infrastructure upgrades in immediate need, including special consideration of Green Zones.

Action WAT.1.2. Process: Investigate the feasibility of battery backup (tied to on-site solar) as opposed to diesel generators to provide emergency power in the event of a power outage. Use as a peak demand management tool during normal operations.

Action WAT.1.3. Process: Continuously review opportunities for efficiency improvements and benchmark and publicly report system's annual water and energy metrics, such as energy use intensity per volume of potable water.

Action WAT.1.4. Process: Collaborate with Metropolitan Council to improve overall system efficiency, including supporting Met Council Energy Services' energy conservation goals at treatment plants and tracking associated impacts on GHG emissions associated with Minneapolis.

Action WAT.1.5. Policy: Maximize use of renewable energy and optimize on-site solar to process water when possible; reduce use of fossil fuels.

Strategy WAT.2. Support residents in their pursuit of making impactful decisions in individual households by offering new customer programs that reduce water use by 2025. *Lead(s): Public Works, Communications, SHHE*

Action WAT.2.1. Program: Expand current programs to raise awareness about the high quality of the municipal tap water.

Action WAT.2.2. Program: Explore offering new customer programs to conserve water.

Action WAT.2.3. Program: Promote customer lead testing program in Green Zones (or other approach to help address lead in pipes).

Action WAT.2.4. Program: Raise awareness about federal/state funding opportunities for service line replacement, especially in the Green Zones, in culturally and linguistically relevant, multi-generational, interactive formats collaborating with other outreach efforts to widely circulate process.

Action WAT.2.5. Program: Consider offering customers inclusive financing to pay for water and possibly energy efficiency improvements on water bill (charges stay with the meter rather than with originating customer).

Action WAT.2.6. Program: Incentivize water efficiency in private buildings during interactions with the city, such as permitting, zoning; Consider restructuring the plumbing permit fee schedule to incentivize high-efficiency water-efficient products.

Action WAT.2.7. Program: Install bottle fill stations in public spaces.



Strategy WAT.3. Build strong inter-jurisdictional relationships to collaborate as needed for climate mitigation and resilience (e.g. neighboring counties, watershed, Met Council, downstream communities, key upstream communities) and to improve overall system efficiency by 10% by 2030.

Lead(s): IGR, Public Works

Action WAT.3.1. Process: Work with key partners to identify the water systems data needed to set, revise and accomplish climate goals (possible examples include peaking factor; emissions factor; efficiency factor).

Action WAT.3.2. Process: Work with key partners to identify the water systems data needed to set, revise and accomplish climate goals (possible examples include peaking factor; emissions factor; efficiency factor).

Action WAT.3.3. Policy: Continue Upper Mississippi Source Water Protection, with Trust for Public Land, regional sustainability partnerships, Minnesota Agricultural Water Quality Certification Program (MAWQCP), and Nature Conservancy engagement.

Action WAT.3.4. Process: Reduce the flow of wastewater from Minneapolis.

Action WAT.3.5. Process: Gather wastewater collection system pipe condition data to inform opportunities to reduce inflow and infiltration into the system (smoke testing, televising, etc.).

Action WAT.3.6. Policy: Reduce inflow and infiltration from sanitary sewer system in public and private systems.

Strategy WAT.4. Investigate optimizing municipal systems for resiliency and the feasibility of alternative sources of water for non-potable uses (ex. stormwater, rainwater for irrigation, gray water) by 2026. *Lead(s): Public Works*

Action WAT.4.1. Process: Investigate feasibility of utilizing gray water systems in public and private buildings, including the associated regulatory and permitting requirements.

Action WAT.4.2. Policy: If feasible, incentivize or encourage gray water systems for new development and landscaping.

Action WAT.4.3. Policy: Encourage drought resistant natural landscaping with native habitat, leading to minimal need for potable water for irrigation.

Action WAT.4.4. Program: Raise awareness about federal/state funding opportunities for lead service line replacement, especially in the Green Zones and all communities in culturally and linguistically relevant, multi-generational, interactive formats collaborating with other outreach efforts to widely circulate.

Action WAT.4.5. Policy: Reduce volume of stormwater flowing into lakes, streams and rivers by incorporating infiltration strategies when feasible.

Photo: flooding in Uptown during a rainstorm.



Implementation

Accelerate Climate Action: Phase I Implementation Plan

The Climate Equity Plan is the first step toward accelerating our climate work and increasing our resiliency. This will be a community wide effort that we hope will bring the residents and businesses together to equitably decarbonize our community and economy.

The following section lays out a Phase I implementation plan intended to set the foundation for accelerating and scaling up the climate work over

the next decade. The action listed in the Phase I Plan demonstrates the significant number of actions that will take place over the next year.

In conjunction with starting implementation we will develop more detailed work plans for each of the strategies as soon as additional capacity and resources allow. The second phase of the implementation will be to develop more detailed plans for implementation with the goal to have all the actions underway within five years.

Phase I Work Plans for Next 12 Months

Goal Area	Action	Implementation Actions	Lead(s)
Air	AIR.2.4	Pilot: Implement residential programs to monitor and improve indoor and outdoor air quality, especially in air areas with higher-than-average asthma rates.	SHHE, MN Pollution Control Agency (MPCA)
	AIR.2.6	Program: Increase neighborhood tree planting on blocks experiencing high levels of outdoor air pollution to improve their indoor air quality, reduce asthma triggers & improve health outcomes.	Public Works
Buildings and Industry	BIN.2.1	Process: Conduct a citywide evaluation of industrial uses.	SHHE, Regulatory Services
	BIN.4.3	Process: Engage with private sector stakeholders, associations, state, and federal government to push for solutions and reward success.	SHHE, CPED
	BIN 6.9	Program: Incentivize the use of residential cold-climate heat pumps in multifamily buildings; Incentivize building owners to replace gas appliances at the end of their useful life with electric (i.e. HVAC, ranges/ovens/water heaters, dryers).	SHHE, Xcel Energy, CenterPoint Energy
Energy Systems	ENS.3.4	Program: Support Resilience Hubs, solar + storage, advanced microgrids and ground source district energy systems at Northgate Training center, Sabathani Community Center, and the Minneapolis American Indian Center.	SHHE, Resilience Hub Sponsors, Xcel Energy
	ENS.4.5	Policy: Participate and Intervene in Integrated Resource Plan and rate case and other dockets that support the Minneapolis Climate Equity Plan dockets.	SHHE
	ENS.5.2	Process: Negotiate energy utility franchise agreements that support the City's Climate Equity Plan goals.	Mayor, City Attorney, Finance, Xcel Energy, CenterPoint Energy, SHHE

Goal Area	Action	Implementation Actions	Lead(s)
City Operations and Enterprise	COE.1.1	Program: Establish a Climate Legacy Initiative fund with on-going, dedicated revenue.	<i>Mayor, City Council, SHHE, City Attorney</i>
	COE.1.2	Process: Establish a community-led advisory board to provide recommendations on the implementation of the Climate Equity Plan and Climate Legacy Plan Investments.	<i>Mayor, City Council, SHHE</i>
	COE.4.3	Program: Expand use of Green Cost share program.	<i>SHHE</i>
	COE.1.6	Process: Increase City staff capacity in 2024 and beyond to support the implementation of the Climate Equity Plan and Climate Legacy Initiative.	<i>SHHE, Human Resources</i>
	COE.2.6	Pilot: Pilot and test new carbon reduction technologies for commercial applications.	<i>Property Services, CenterPoint</i>
	COE.2.8	Program: Commission a blueprint for how the City Enterprise could decarbonize City Operations by 2040.	<i>SHHE, Property Services, Public Works</i>
	COE.3.4	Policy: Require Equity Strategies and community benefits be embedded in city owned or city financed renewable energy projects.	<i>Property Services, SHHE</i>
Economy and Workforce	ECW.1.3	Program: Expand workforce training for solar energy and energy efficiency.	<i>SHHE</i>
	ECW.1.9	Program: Provide education and technical assistance for new businesses.	<i>CPED, Community Partners</i>

Goal Area	Action	Implementation Actions	Lead(s)
Food and Zero Waste	FZW.2.5	Program: Allow growing of edible produce on boulevards for personal use (MFV).	<i>Homegrown Minneapolis, CPED</i>
	FZW.2.6	Policy: Provide resources for remediation of soil contamination, including use of biochar enriched compost.	<i>Homegrown Minneapolis, CPED</i>
	FZW.2.7	Policy: Simplify the permitting process and reduce other barriers for year-round or season extending growing structures such as hoop-houses and greenhouses.	<i>Homegrown Minneapolis, CPED</i>
	FZW.7.8	Policy: Update the Green to Go ordinance requirements (Chapter 204—Title 10) in 2023 to further restrict distribution of unnecessary oil-based single-use plastics. Pair the update with continued education/enforcement for businesses around the ordinance. Focus outreach and assistance in the Minneapolis Cultural Districts and with BIPOC-owned restaurants in transitioning to non-foam, non-plastic products. Support for restaurants may come from the Minneapolis Small Business Team, Environmental Health, business-serving organizations, and neighborhood organizations.	<i>City Regulatory Services</i>
Green Space and Trees	GST.1.11	Policy: Require reconstructed boulevards to be recessed by 2024. Establish standard detail in 2023 and communicate requirements to PW and CPED for incorporation in their guidelines. Partner with outside entities to help adjacent properties lower and replant boulevards with sustainable landscaping.	<i>Public Works, CPED</i>
	GST.4.2	Program: Increase use of biochar in public and private green spaces starting in 2024 to sequester carbon and increase soil health.	<i>SHHE</i>
	GST.4.3	Policy: By 2024, create guidelines for conversion and construction of vegetated portions of ROW projects that includes use of soil amendments (such as biochar/compost blend), tree planting, and pollinator / native plant use.	<i>SHHE, Public Works, MPRB</i>
	GST.4.5	Process: Annually analyze vegetation metrics by neighborhood and evaluate future projects to equitably distribute green infrastructure and greenspace in environmental justice/green zones.	<i>SHHE, Public Works</i>

Goal Area	Action	Implementation Actions	Lead(s)
Healthy Homes	HEH.1.3	Pilot: Begin whole home weatherization and electrification retrofit pilot to understand sequencing, build knowledge, develop work force, and further coordination with other metro cities' initiatives using \$1.4 million in ARPA and EECDBG federal funding.	SHHE, CPED
	HEH.3.2	Program: Update TISH Energy Reports to identify gas and conventional electric resistance equipment in the home and encourage high-efficiency electrification, dual fuel heating systems, and carbon-free energy choices.	SHHE, CEE
	HEH.3.4	Pilot: Engage in an educational home electrification campaign in concert with other metro cities.	SHHE, CEE
Transportation and Complete Streets	TCS.1.1	Process: Update the Minneapolis Transportation Action Plan GHG reduction goal, which is based on the original Climate Action Plan target of 80% emissions reduction by 2050. The new goal should meet the mayor's new science-based, fair share goal of net zero by 2050.	Public Works, SHHE
	TCS.3.6	Process: Update city zoning and land use policies to implement Minneapolis 2040 comprehensive plan goals and policies to reduce VMT, protect against displacement, and increase racial equity consistent with Complete Streets policies, affordable housing, clean air, health, etc.	Public Works, SHHE
	TCS.4.2	Program: Actively promote alternatives to car ownership such as bike share, EV car share, transit and other shared mobility.	Public Works, Communications
Water	WAT.1.5	Policy: Maximize use renewable energy and optimize on-site solar to process water when possible; reduce use of fossil fuels.	Public Works
	WAT.2.3	Program: Promote customer lead testing program in Green Zones (or other approach to help address lead in pipes).	Public Works, SHHE
	WAT.2.4	Program: Raise awareness about federal/state funding opportunities for service line replacement, especially in the Green Zones, in culturally and linguistically relevant, multi-generational, interactive formats collaborating with other outreach efforts to widely circulate process.	SHHE, City Communications, Community Organizations

What Can I Do?

Centering equity was one of the primary goals in developing the Climate Equity Plan. As such, feedback from community was critical to identifying solutions that not only address environmental injustices but also provide information on what citizens can individually and collectively do now.

In general, community members want access to existing programs and a deeper understanding of climate issues. It was equally important for these learnings to be culturally and economically relevant. Many expressed the desire for “Energy Educators” to interface directly and consistently with community to provide technical support and information on reducing carbon emissions and energy burden for households. These teams can empower our youth as they become the stewards of our growing Green Economy.

Some suggested strategies that individuals can do now are as follows:

- Using reusable water bottles and shopping bags
- Gardening and composting to reduce food waste
- Installing air monitors and filters to assess and improve indoor air quality
- Utilizing public transportation to reduce personal car use
- Reducing the amount of goods purchased and practicing sustainable consumption
- Changing to LED light bulbs
- Eating less meat and switching to a plant-based diet
- Enrolling in energy assistance programs for households earning less than 60% Area Median Income

- Upgrading household appliances to electric
- Using low-flow fixtures to reduce water consumption and energy water treatment costs
- Installing energy efficient windows to reduce heating and cooling costs
- Increasing insulation within walls and roof to maintain consistent indoor temperatures
- Switching to an electric vehicle or electric bike
- Working remotely, when possible, to decrease transportation expense
- Growing a snake plant indoors or planting trees outdoor to filter air
- Install rooftop solar or apply for solar through Community Solar Gardens or Xcel Renewable*Connect
- Volunteering for the Northside and Southside Green Zones initiatives

When we replace, reduce, or recycle activities or things that cause an increase in carbon emissions, we can collectively preserve our natural resources to improve the Health, Wealth, and Climate of our community. What one thing will you do to reduce your environmental footprint to sustain our planet for future generations.

Appendix

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Participants

Steering Committee

- Megan Kuhl-Stennes, Southside Green Zone Council
- Spencer Polk, Southside Green Zone Council
- Kowsar Mohamed, Southside Green Zone Council
- Leslee Jackson, Northside Green Zone Task Force
- Anna Johnson, Community Environmental Advisory Committee, Fresh Energy
- Mark Dhennin, Community Environmental Advisory Committee
- Katie Jones, Energy Vision Advisory Committee (EVAC)
- Kate Knuth, Democracy and Environment, LLC
- Abby Finis, Local Climate Solutions Consulting
- Phitz Nantharath, Lao Center of MN
- Girma Hassen, Oromo Cultural Institute
- Ansha Zaman, EVAC—Center for Earth, Energy, and Democracy (CEED)
- Peter Ebnet, Office of Mayor Jacob Frey
- Ed Eiffler-Jaramillo, Office of Mayor Jacob Frey
- Patrick Hanlon, Minneapolis Division of Sustainability, Healthy Homes and the Environment
- Zoe Bourgerie, Office of Council President Andrea Jenkins
- Shane Stennes, University of Minnesota
- Sean Gosiewski, Resilient Cities and Communities

Community Partners

- One Family One Community, Maleta “Queen” Simmons
- Lao Community, Phitz Nantharath
- Climate Generation, Ramiro Vasquez Jr.
- Native American Community, Bob Blake
- St. Paul Lutheran Church, Rev. Hierald E. Orsoto
- Oromo Cultural Institute, Girma Hassen
- Lao Center of MN, Sunny Chanthanouvong
- Somali Community, Ahmed Mussa

Leadership Team

Primary City Staff

- Kim Havey, Director of Sustainability
- Luke Hollenkamp, Buildings and Energy System Decarbonization Specialist
 - *Support for Energy Systems*
- Stacy Miller, Energy and Climate Regulatory Policy Specialist
 - *Support for Transportation and Water*
- Kelly Muellman, Manager, Environmental Programs
 - *Support for Circular Economy, Green space, and Clean Air*
- Bjorn Olson, Sustainability Program Coordinator
 - *Support for Commercial, Multi-Family and Industrial*

Consultants

- Alicia Belton, Urban Design Perspectives
- Fatima Abdirashid Adam, Urban Design Perspectives
- Imani Mosher, Precipitate
- Elizabeth Turner, Precipitate

Working Groups

Buildings and Industry

- Sally Grans Korsh, Facility Management and Environmental Advisor
- Dannielle Peterson, Shorenstein Realty
- Sean Gosiewski, Resilient Cities and Communities
- Kayla Kirtz, City of Robbinsdale
- Toya Lopez, Health Professionals for Healthy Climate
- Bruce Lundeen, Commercial Mechanical Contractor
- Coty Lowry, Multifamily Property Owner
- Patrick Crowe, Real Estate Developer
- Marcus Mills, MN350 and Black Visions
- Ariane Laxo, HGA Architecture
- Wade Cooper, HGA Architecture
- Bill Barberg, Insight Formation
- Kevin W. Corrado, MN350
- Kawai Washburn, MN350
- Janet Court, Cooperative Resident
- Mark Francis, Energy Efficient Buildings Evaluator (Ret.)
- Joe Krekeler, University of Minnesota Engineering Supervisor
- Mark Dhennin, CEAC representative, Industrial Energy Engineer (Ret.)
- Ana de la Torre, City of Saint Paul Green Corps
- Chris Droske, City of Minneapolis Energy Manager
- Kelsey Myers, City of Minneapolis Public Health Specialist
- Nadia Khan, City of Minneapolis Energy Benchmarking Program Coordinator
- Isaac Evans, City of Minneapolis Sustainability Program Coordinator
- Marie Larson, City of Minneapolis Industry Relations Manager

Economy and Workforce

- Marie Larson, City of Minneapolis
- Markeeta Keyes, City of Minneapolis
- Wayne Barnett, Clearway Energy
- Megan Christel, Tree Trust
- Jacob Graff, Clearway Energy
- Sean Gosiewski, RCC Energy
- James C Houston, Xcel Energy
- Katie Kowalczyk, City of Minneapolis
- Marcus J. Mills, Community Power
- Daniela Mejia
- Stacy Miller, City of Minneapolis
- Rachel A Molzahn, CenterPoint Energy
- Mari Ojeda, Fresh Energy
- Rebecca Olson, Center for Energy and Environment (CEE)
- Sydney Schaaf, City of Minneapolis
- Laura Scholl, Metro Blooms
- Albert M Swintek, CenterPoint Energy
- Elizabeth Turner, Precipitate Architecture
- Kawai Washburn
- Nazir Khan, City of Minneapolis
- Kevin Pranis, LIUNA, including City Local 363
- Adam Hutchins, LIUNA Marketing
- Dan McConnell, MPLS Building Trades Business Manager, Workforce Board Member
- Steve Johnson, Local 563 Field Organizer; Lake Street Works, Building Strong Communities, TC Rise

Energy Systems

- Luke Hollenkamp, City of Minneapolis
- Bjorn Olson, City of Minneapolis
- Chris Droske, City of Minneapolis
- Kat Knudson, CenterPoint Energy
- Al Swintek, CenterPoint Energy
- Dan King, Xcel Energy
- Nick Martin, Xcel Energy
- Suzanne Murphy, Xcel Energy

- Timothy DenHerder-Thomas, Cooperative Energy Futures
- Katie Jones, CEE
- Marcus Mills, Community Power
- Patty O'Keefe, Sierra Club
- Elizabeth Turner, Precipitate
- Natalie Haberman, Fresh Energy
- Leah Hiniker, Hennepin County
- John Farrell, ISLR
- Luke Gaalswyk, Ever-Green Energy
- Jake Graff, Cordia
- Spencer Polk
- Lee Samelson, Community Power
- Dani Replogle, Public Health Law Center at Mitchell Hamline
- Evan Mulholland, MCEA
- James Bohn, FVB Energy

Food and Zero Waste Circular Economy

- Kelly Muellman, City of Minneapolis
- Kellie Kish, City of Minneapolis
- Alison Babb, City of Minneapolis
- Grace Rude, City of Minneapolis
- Moses Viveros, City of Minneapolis
- Joseph Vital, Hennepin County
- Kira Berglund, Hennepin County
- Vasiliki Papanikolopoulos, Circular Twin Cities
- Brandon Griffin, SVP Sanneh Foundation
- Robert Lodge
- Mia Beste, Resilient Cities + Communities
- Thanmayee Maddipati
- Lee Samuelson, Ward 12 team for People's Climate Equity Plan / Community Power
- Emily Barker, ED of Reuse Minnesota
- Dan Swenson-Klatt, owner of Butter Bakery
- Cari Monroe

- Leo Ndiaye, Resilient Cities + Communities
- Marcus Mills, Community Power and MN350 board
- Kim Haroldson, Zero Waste Advocates of Minnesota
- Liz Mullen, Chow Girls catering
- Amy Fredregill, WSB
- Eric Holthaus, Hennepin County
- Britta Dornfeld, Environmental Initiative
- Janet Court
- Mia Farnias, MN350
- Tess Dornfeld
- Alice Madden, Community Power
- Keely Cervantes, Conservation Minnesota
- Grace Delee
- Julie Kearns, Junket
- Mariana Debbe
- Nazir Khan, MN EJ Table
- Toya Lopez

Green Space and Trees

- Kelly Muellman, City of Minneapolis
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- Alejandra Rodriguez Diaz, City of Minneapolis
- Jim Doten, City of Minneapolis
- Katie Kowalczyk, City of Minneapolis
- Paul Hudalla, City of Minneapolis
- Grace Rude, City of Minneapolis
- Maya Swope, The Nature Conservancy
- Philip Potyondy, Minneapolis Park and Recreation Board
- Emma Pachuta, Minneapolis Park and Recreation Board
- Kristel Porter, MN Renewable Now and WBA
- Michaela Neu, Green Minneapolis
- Marcus Mills, Community Power and MN350 board
- Ellen Esch, Met Council
- Laura Scholl, MetroBlooms
- Ellen Sones, Hennepin County

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- Sean Gosiewski, Resilient Cities + Communities
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- Alice Madden, Community Power
- Ginny Halloran
- Lori Cox
- Julie Atkinson
- Lindsey Kemmerling
- Rikki Honnold
- Toya Lopez
- Chris Vazquez
- Megan Christel
- Sean Connaughty
- Sally Donovan
- Tess Dornfeld
- Erin Niehoff
- April Mendez, GreenPrint Partners

Healthy Homes

- Luke Hollenkamp, City of Minneapolis
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- Murphy Sinsky, City of Minneapolis
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- Alex Vollmer, City of Minneapolis
- Breanna Phelps, City of Minneapolis
- Kevin Knase, City of Minneapolis
- Dustin Brandt, City of Minneapolis
- Brad Ellis, City of Minneapolis
- Mumtaz Anwar, City of Minneapolis
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- Isaac Evans, City of Minneapolis
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- Marcus Mills, Community Power
- Joe Dammel, Fresh Energy
- Timothy DenHerder-Thomas, Cooperate Energy Futures
- Dan King, Xcel Energy
- Nick Minderman, Xcel Energy
- Josh Martin, Xcel Energy
- Kat Knudson, CenterPoint Energy
- Al Swintek, CenterPoint Energy
- Akisha Everett, U of M Energy Transition Lab

- Eduardo Cardenas
- Mary Britton, Prospect Park Association, Environment Committee Chair
- Carmen Caruthers, CUB
- Katie Jones, CEE
- Josh Quinnell, CEE
- Arbor Otalora-Fadner, CEE
- Rebecca Olson, CEE

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- Stacy Miller, City of Minneapolis
- Kathleen Mayell, City of Minneapolis Public Works
- Russ Brooks, City of Minneapolis Public Works
- Shanna Sether, City of Minneapolis Community Planning and Economic Development
- Neal Callinan, Xcel Energy
- Kevin W. Corrado
- Satish Desai
- Carlee Ellefsen, Our Streets Minneapolis
- Jeff Freeman, Metro Transit
- Mercedes Gohl, Metro Transit
- Sean Gosiewski, Resilient Cities and Communities
- Dan King, Xcel Energy
- Toya Lopez
- Nick Minderman, Community Environmental Advisory Commission Member
- Spencer Polk
- Bridget Rathack
- Kawai Washburn
- Minneapolis Bicycle Advisory Committee
- Minneapolis Pedestrian Advisory Committee

Water

- Stacy Miller, City of Minneapolis
- Luke Hollenkamp, City of Minneapolis
- Annika Bankston, City of Minneapolis
Division of Water Treatment &
Distribution Services
- Angie Craft, City of Minneapolis Public
Works Sanitary Sewer
- Chris Droske, City of Minneapolis
Energy Manager
- Fatima Abdirashid Adam
- Martha Allen
- Keely Cervantes, Conservation MN
- Lori Cox
- Noah Fribley
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- Dan King, Xcel Energy
- Kat Knudson, CenterPoint Energy
- Alice Madden, Community Power MN
- Gladys Daniels Mejia
- April Menendez
- Erin Niehoff
- David Ponder, Metropolitan Council
- Christine Popowski
- Shelia Wiegman

Existing Plans

This Climate Equity Plan has built off the work of many previous planning efforts. These plans have informed the direction and strategies in the Climate Equity Plan. Their core themes are listed here.

2013: Minneapolis Climate Action Plan

The City commissioned the first Climate Action Plan and set an aggressive goal to reduce GHG emissions by 30% by 2025 and 80% by 2050 through increased renewable energy, biking and recycling and introducing a novel idea called composting of food and organics.

The plan's strategies helped us achieve the 30% GHG reduction 5 years early in 2020. The process was not equitable or inclusive, and members of Minnesota's environmental justice community pushed the City to create Green Zones. After 10 years the plan has fulfilled its purpose and the new Climate Equity Plan will be built on foundations this plan has created.

2019-2020: Northside & Southside Green Zone Work Plans

After the Minneapolis Green Zones were established by City Council resolution in 2017, advisory committees were established for each Green Zone to create and implement work plans. In December 2019 and March 2020, the Southside and Northside Green Zones, respectively, adopted 5-year Work Plans to achieve their environmental justice goals.

- [Northside Green Zone Work Plan](#)
- [Southside Green Zone Work Plan](#)
- See the following page for more about Green Zones Plans

2019: Zero Waste Plan

The Zero Waste Plan addresses solid waste generated from all sectors within the City and will serve as a road map for the City to achieve its overall sustainability goals, including but not limited to its zero waste goal.

2020: Minneapolis Comprehensive Plan

Minneapolis 2040, the City's comprehensive plan, will guide City decision-making for the next 10 years, with an eye toward the year 2040. After 10 years, the City will update the plan again in accordance with state statute.

2020: MPRB Ecological System Plan

The Ecological System Plan outlines how and where to address environmental consideration in the work the MPRB does on its own and in partnership with other organizations. This plan is the first of its kind and one of many referenced and used in the development of park plans and implementation of park projects.

2020: Minneapolis Transportation Action Plan

The Minneapolis Transportation Action Plan (TAP) is a 10-year action plan to guide future planning, design, and implementation of transportation projects for all people however they choose to move around. The TAP recognizes transportation as a critical component to increase equity, address climate change, and improve human health through cleaner air, walking, and rolling.

2021: 100% Renewable Electricity Blueprint

Minneapolis has a plan to reach 100% renewable electricity by 2023 for City operations and by 2030 community wide.

Hennepin County Climate Action Plan

Adopted in May 2021 the Hennepin County Climate Action Plan identifies strategies to cut greenhouse gas emissions and adapt to our changing climate in ways that reduce vulnerabilities and ensure a more equitable and resilient Hennepin County. The Hennepin County Board of Commissioners updated county goals to reduce greenhouse gas emissions by 45% from 2010 levels by 2030 and achieve net zero emissions by 2050. With goals to protect and engage vulnerable communities, enhance public safety, increase resilience, reduce emissions, and partner in ways that are impactful.

2023: Food Vision

The Minneapolis Food Vision is a ten-year plan designed to create a resilient, equitable local food system by 2033. It was developed by people who live and work in Minneapolis. Incorporating data and community input.

2022: People's Climate & Equity Plan

The People's Climate & Equity Plan for Minneapolis was created by a coalition led by MN 350 and is a people-centered approach to implementing climate solutions, creating jobs, and reducing inequality. Their goals are:

- **Guarantee comfortable, affordable, and carbon-free buildings for all of Minneapolis by 2030**
- **Reduce the racial wealth gap by creating access for communities of color to family-sustaining jobs in the growing green economy. Ensure every person has a safe, healthy and climate-resilient neighborhood connected by accessible, carbon-free transportation**
- **Create a robust dedicated funding stream to make bold climate justice policy a reality**

The goals and recommendations of this plan have been greatly influenced by the People Climate and Equity Plan and have a shared vision for a sustainable future.

State:

Minnesota Climate Action Framework

In September 2022, the Governor's Climate Change Sub-cabinet released Minnesota's Climate Action Framework to set a vision for how our state will address and prepare for climate change. It identifies immediate, near-term actions we must take to achieve a carbon-neutral, resilient, and equitable future for Minnesota.

The Framework calls for a 50% reduction in emissions by 2030, 10 years of prioritized investment to prepare for climate change and net zero-emissions across Minnesota by 2050.

Global:

IPCC

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. The IPCC prepares comprehensive Assessment Reports about the state of scientific, technical, and socioeconomic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place.

One part of these reports identifies tipping points, which are critical thresholds in a system that, when exceeded, can lead to a significant change in the state of the system, often with an understanding that the change is irreversible. An understanding of the sensitivities of tipping points in the physical climate system, as well as in ecosystems and human systems, is essential for understanding the risks associated with different degrees of global warming. Governments at all scales use IPCC reports to understand the most recent climate science and guide climate policy.

Historical City Climate Action Timeline

1990: Community Environmental Advisory Committee

The Community Environmental Advisory Committee (CEAC) works closely with the Sustainability Division and provides policy and program advice and comments to the City Council and City staff. CEAC may suggest environmental priorities for City policies, programs, and projects using criteria including, but not limited to, natural and built environmental impact, community impact, timeliness, environmental justice, and equity.

2013: Climate Action Plan

The first comprehensive plan was adopted by the City that established the climate action goals and strategies. Beginning in early 2012, Minneapolis convened multiple stakeholder groups to develop goals and strategies that would provide a road map to our emissions reduction targets. This plan focused on three key sectors: Buildings & Energy, Transportation & Land Use, and Waste & Recycling. The process also included an Environmental Justice Working Group focused on building social and environmental equity into the plan and examining how those who will be most impacted by climate change can share in the benefits of climate action. This work led to the creation of the Green Zones.

2013: Commercial Benchmarking Policy

The Minneapolis Building Rating and Disclosure Policy requires commercial buildings 50,000 square feet and larger and city-owned buildings 25,000 square feet and larger to annually benchmark their energy consumption through ENERGY STAR Portfolio Manager. This ordinance allows building owners and the City to track energy and water usage year to year to determine opportunities for improvement, recognize high performers, and determine progress towards the City's climate goals. The ordinance also requires annual reports of benchmarking results released to the public. Commercial buildings over 50,000 square feet represent over 70% of the total commercial square footage in Minneapolis.

2014: Clean Energy Partnership and Energy Vision Advisory Committee

The Minneapolis Clean Energy Partnership (CEP) is an approach that partners the City of Minneapolis in a unique way with Xcel Energy and CenterPoint Energy, its electric and gas utilities, to help the City reach its Climate Plans goals. The CEP is a collaborative leadership framework through which the City and utilities will study, prioritize, plan, coordinate, implement, market, track, and report progress on clean energy activities in the city.

EVAC serves as a community stakeholder advisory committee to the Clean Energy Partnership Board. EVAC is charged by the Board with reviewing and providing feedback on the Clean Energy Partnership's biennial work plan and measurement and performance reports; providing feedback on special initiatives as requested by the Board; and, communicating to members' respective constituencies about EVAC and Board decisions and activities. The work of EVAC is critical to the success of the Clean Energy Partnership.

2017: Green Zones

On April 28, 2017 Minneapolis established two geographic areas and two resident-based advisory councils to pursue racial and environmental equity. Green Zones are a city designation for neighborhoods or clusters of neighborhoods that face the cumulative impacts of environmental, social, political and economic vulnerability. A Green Zone is an environmental and economic development tool that targets new green infrastructure and retrofits to an area in a comprehensive manner. Green Zones could correspond with targeted housing and commercial retrofit campaigns, to increase energy efficiency or boost renewable energy installation. Areas with Green Zone designation may better be positioned to access benefits offered by the city as well as state and federal agencies, ranging from targeted pollution reduction to increased funding opportunities. The Northside and Southside Green Zones have developed work plans to guide future efforts.

2017: Utility Franchise Fee to Support Sustainability

Communities negotiate franchise agreements with utility companies to identify the conditions under which those companies are allowed to use public property to provide service to local residents and businesses. We raised the franchise fee in 2017 and simultaneously the Mayor's office budgeted for an additional \$2.8M to the Sustainability budget to go to climate reduction projects (businesses and residential).

2019: Residential Energy Ordinance

This ordinance added residential buildings over 50,000 ft² into benchmarking program, and provided an energy score to new home owners and average energy costs to prospective renters with the goal to have the private market encourage more energy efficiency through energy information disclosure.

2021: Climate Emergency Resolution

Passage of Resolution declaring that there is a climate emergency which demands a massive-scale mobilization to halt, reverse, and address the consequences and causes of climate change.

2023:

Development of the Climate Equity Plan and passage of a resolution adopting the plan and replacing the 2013 Climate Action Plan.

Climate Equity Plan Feedback

A draft of the Climate Equity Plan was released for public comment on April 19, 2023. Executive summaries and an evaluation survey were published and translated into Hmong, Somali, Spanish, Oromo, and Lao. Public comment period was open for 47 days and closed June 5th.

Climate Equity Plan written and verbal comments feedback analysis

We received over 150 written and verbal comments from both City staff and external stakeholders as well as from the Community Environmental Advisory Commission (CEAC), Homegrown Minneapolis Food Council, Climate Equity Plan Steering Committee members, CenterPoint Energy, Xcel Energy, Fresh Energy, MN 350 and many community members. In addition, we participated in six Climate Equity Plan listening sessions hosted by Council Members in their wards and presented at the Green Zone Summit and Neighborhood and Community Relations (NCR) Community Connections Conference. Many of the comments were similar so they have been combined with other similar comments..

Comments and Responses:

- Align the goals, strategies, and actions. **These sections were redesigned to better align the goals, strategies and actions and are now included in the main body of the plan as compared to having it in the appendix as the first draft.**
- Make the Actions concrete with the 4Ps. Each Action is more likely to be successfully implemented if it is a pilot, program, process, or policy (4Ps). **These were added to all actions.**
- Specify who will lead on each Action. **Each strategy includes a lead or leads.**
- Include a funding and implementation plan. **A 12–18 month implementation plan was added following the water section.**
- Commit to conducting a vulnerability analysis and resilience plan. **This was added as an action to City operations and leadership.**
- Establish an accountability mechanism similar to CLIC. **This was added as an action to City operations and leadership.**
- Ensure existing recommendations from community advisory boards (such as the South Side Green Zones Council recommendations) are entirely incorporated into the new Climate Equity Plan. **A new section was added to the main body of the document to highlight the work of the Green Zones. The recommendations of the Green Zone work plans were reviewed and leverage to develop the strategies and actions.**
- Include qualitative and quantitative equity metrics associated with each goal. **This was done to as many of the goals as was feasible based on available information.**
- Quantify how the strategies will meet the City's climate goal. **Specifics GHG reduction goals were included for each five carbon areas that are tracked (page 26) as well as for the Healthy Homes and Buildings and Industrial sections.**
- Make the goals numeric. Each category (Healthy Homes, Clean Air, etc.) should have numeric goals, including at a minimum a greenhouse gas emissions reduction goal. **Where this was possible we did add in specific metrics and dates.**

- Reduce methane gas leakage and emissions by utilizing industry leading leak detection and cross compression technologies (Picarro, ZEVAC, etc.).
This was added as an action to Energy systems.
- Leveraging the Natural Gas Innovation Act (NGIA) to increase energy efficiency and lower greenhouse gas emissions via dual fuel air source heat pump (ASHP) heating, ventilation, and air conditioning (HVAC) systems, carbon capture, green hydrogen, renewable natural gas (RNG), and additional advancements.
This was added as an action to City Operations and Leadership.
- On page 25 of the draft CEP, we suggest replacing “may” with “will” and deleting “modestly” so the resulting text reads “CenterPoint Energy has begun the process of creating an innovation plan that will include fossil gas decarbonization strategies to decrease gas emissions in the coming years.”
This action was updated in the Energy Systems.
- The goal of energy burden not to exceed 4% does not take into count future costs of switching fuel costs for transportation to all electric and does not align with other government bodies. **Energy Burden is calculated by dividing your total energy costs by your income. However, as more cars are electrified fuel costs for a car will become part of the electric bill. Thus, it’s important to segregate the transportation costs from the housing energy costs to determine the true housing energy burden.**
- The State of MN and Federal government consider a high energy burden as above 6%. To align with State and federal policy the energy burden goal was changed from reducing the number of households with housing energy burden over 4% by 50% to reducing all households with an energy burden over 4% by 2030. In addition, energy metrics we currently have available do not track energy burden of less than 6%. Energy.

Online Survey feedback analysis:

The city received 845 individual surveys. 79% of respondents identified as White, followed by 4.3% identifying as Latinx/Hispanic, 2.87% as Black or African American, 2.22% as Asian or Asian American, 2.09% as Multiracial or Bi-Racial, 1.83% as Other, and 6.91% preferred not to answer. 28.5% of respondents were under 35, 29.5% were 35-55, and 42% were over 55 years of age. When asked whether respondents lived, worked, or recreated in Minneapolis, 89% reported living in the city. Responses came from every zip code and neighborhood in the city. Homeowners comprised 70% of responses with renters being 25% and 5% choosing not to answer.

What we heard:

On a scale of 1-10 (10 indicating “seriously impact”), respondents averaged a score of 9 when asked how they feel climate change will impact them and their communities. On a scale of 1-10 (10 indicating “full support”), respondents averaged a score of 7 when asked whether they support the draft plan. When asked if the plan will impact them and their communities in a positive way, respondents averaged 6 on a scale of 1-10 (10 indicating “yes”). Finally, when asked if they think this plan does enough to address climate change, the average response was a 4 on a scale of 1-10 (10 indicating “yes, completely”). Respondents identified Energy Systems (23.68%), Homes and Apartments (22.24%), and Transportation (14.47%) as the most important topics.

In summary, residents of Minneapolis are extremely concerned about the impact climate change will have on their personal lives as well as the well-being of their communities. While there is general support for the draft plan and belief that positive impacts will result from the actions and strategies within, many feel strongly that the plan does not do enough to address climate change. These results are further supported by the comments received in the open-ended questions.

Two questions allowed for respondents to give open-ended answers. They were:

- **Question 8:** What other actions could this plan take to address environmental justice and equity?
- **Question 9:** Is there anything missing in the Plan you would like to see?

Question 8:

“The work of environmental justice and equity has to include, as its primary core value, listening to and following communities of color...”
— Survey response

There is no doubt: equity and climate change must be resolved together. The health of our people and the health of the environment are one in the same. We cannot celebrate the natural and intercultural beauty of Minneapolis without acknowledging the tragedy of racism and injustice. Today and every day, we face these challenges and dedicate this work to future generations. We succeed or we fail together.

Minneapolis is hungry for change. Of 845 responses, 621 answered question 8 regarding environmental justice and equity. Of these, only ten (1.2%) expressed anti-equity sentiments including “Stop the plan completely”, “Shut down this program”, and “Enough with the equity BS. Disparities are because of income, not race, and there will always be poor people.” The remaining 98.8% of respondents were overwhelmingly in favor of the plan’s equity considerations and pushed for further action.

Survey responses addressed a wide range of environmental justice issues including mental health support, affordable housing options, public transit, and waste management. However, prominent themes emerged from the variety of suggestions. Respondents placed a strong emphasis on addressing and investing in the clean energy needs of low-

income individuals, renters, and communities of color, as they are disproportionately affected by environmental issues. The most commonly used words across responses included:

- **Community/Communities:** 108 mentions
- **Job:** 104 mentions
- **Low income:** 79 mentions
- **BIPOC** (Black, Indigenous, People of Color): 67 mentions
- **Equity:** 65 mentions
- **Union:** 57 mentions
- **Rent:** 51 mentions
- **Home:** 51 mentions
- **Budget** and **“fund/funding/funds”** were also mentioned hundreds of times

The following recommendations emerged from cumulative analysis of submitted responses:

- Ensure increased, dedicated, and equitable funding for under-resourced communities and Green Zones.
- Engage diverse communities in localized community spaces. Provide transparent multilingual communication and resources that include residents in the decision-making process.
- Create green and union job opportunities with intentional investments in BIPOC communities and workforce development.
- Address systemic harms experienced by marginalized groups.

Response	Comment	Topic	Strategy/Action
Increased funding, more equitable green union jobs, and more expedient timelines			
	Increased funding	City Operations & Enterprise Leadership	2
	More equitable green union jobs	Green Economy & Workforce	1
	More expedient timelines	General	Act faster

Question 9:

All responses were collected and sorted by assigning a relevant topic and strategy/action. From there, city staff analyzed data to incorporate recommendations into the draft. As an example, a response that called for “increased funding, more equitable green union jobs, and more expedient timelines” would be categorized as three comments and sorted according to topic and strategy/action. Comments without existing topics were assigned as “General” with more specific notes included. Using this method, over 1,800 comments were provided from the responses received.

Example of response analysis

From these responses the greatest number of comments (488) were in the “General” category and consisted primarily of three topics:

- **“Timeline”** — 191 comments urging “immediate” and “more aggressive” action
- **“Goals”** — 128 comments recommending bigger, measurable, and transparent goals that align emission reductions actions to overarching goal to be carbon neutral by 2050
- **Accountability** — 113 comments requesting identification of staff and departments responsible for carrying out actions

“City Operations & Enterprise Leadership”

was the second highest topic response with 307 comments comprised mostly of increasing committed funding dedicated to climate projects. Developing departmental carbon budgets and leveraging additional state and federal funding were also included.

From there, remaining topics received the following number of comments:

- **Healthy Homes:** 64
- **Transportation:** 57
- **Energy Systems:** 43
- **Green Buildings:** 43
- **Green Economy & Workforce:** 42
- **Circular Economy:** 31
- **Greenspace & Trees:** 30
- **Clean Air:** 11
- **Clean Water:** 3

“Climate Equity” also received 29 comments, but more analysis on climate equity and environmental justice are included in question 8.



For reasonable accommodations or alternative formats, please call 311 at 612-673-3000.
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TTY users can call 612-263-6850.

Para asistencia 612-673-2700.

Yog xav tau pab, hu 612-673-2800.

Hadii aad Caawimaad u baahantahay 612-673-3500.

Updated: November 6, 2023