



MAHA
climate
ACTION AND RESILIENCE PLAN

VIRTUAL PUBLIC MEETING

ROUND 1

Monday, February 12, 2024



WELCOME!



 MAHA
climate
ACTION AND RESILIENCE PLAN

SAFETY MOMENT

- If you are in an emergency situation, please let us know via the chat box.



RULES OF ENGAGEMENT

- Our presentation will be 20-30 minutes
- All attendees will be muted
- Please submit your questions using the Q&A feature throughout the presentation
- We will answer them verbally AFTER the presentation
- Please be kind, courteous, and respectful to all participants
- Please keep questions / comments on-topic. Disparaging or non-topical comments will not be answered



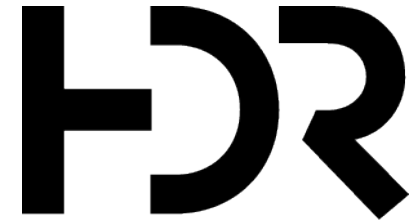
MEETING OVERVIEW

- Introductions
- Climate Change Impacts
- Omaha Climate Action and Resilience Plan
- Q & A

After our virtual session, please share your input, ideas and thoughts through the surveys on omacap.org!



INTRODUCTIONS



WHAT IS CLIMATE CHANGE?



WHAT IS CLIMATE CHANGE?

- **Climate change**: long-term changes in global temperatures and other characteristics of the atmosphere
- Characteristics that have changed:
 - Average temperatures
 - Extreme temperatures
 - Precipitation
 - Intensity, frequency, and duration of weather events



WHY IS THE CLIMATE CHANGING?



- Human activities are causing the amount of greenhouse gases in the atmosphere to increase
 - Burning fossil fuels
 - Cutting down forests
- Greenhouse gases trap heat, causing our global temperatures to rise



GREENHOUSE GASES

Where They Come From



Energy

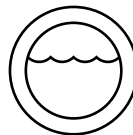
(Electricity + Stationary Fuel Combustion)



Mobile Fuel Combustion



Solid Waste



Wastewater



FOSSIL FUELS

- The largest source of global warming is the burning of fossil fuels
- This extracts carbon locked in the Earth's crust and releases it as greenhouse gases, increasing the total amount in our atmosphere

Source: Climate Reality Leadership Corps



RISING TEMPERATURES

- 22 of the 23 hottest years on record have occurred since the year 2000
- The hottest years of all have been the last 9 years



Source: Climate Reality Leadership Corps



CLIMATE CHANGE IMPACTS



Health impacts (allergies, extreme heat and cold, air quality)



Agriculture (crop yields, irrigation and water supply, pests)



Wildfires



Food supply



Water resources (precipitation, water quality, and water supply)

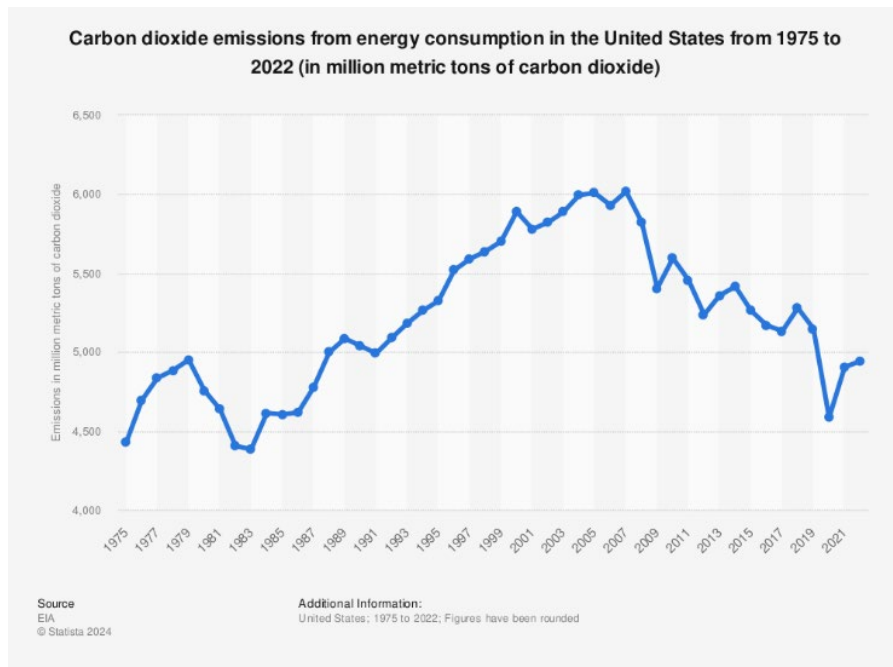


GOOD NEWS – THERE ARE THINGS WE CAN DO!



Greenhouse gas emissions are slowing down

- Greenhouse gas emissions in the United States peaked in 2007, and have been steadily declining since
- We need to reduce emissions faster to avoid the worst impacts – and as individuals, we can help make this happen



GOOD NEWS – THERE ARE THINGS WE CAN DO!



Cities can help implement goals

- Cities, like Omaha, with their concentration of people, economic activity, and infrastructure, have an opportunity to drive efforts to decarbonize and build climate resilience.
- Benefits of climate action include:
 - Job creation and economic development
 - Improved ability to bounce back from power outages and to provide power, regardless of fossil fuel resources
 - Improved air quality and public health
 - Improved water quality and ecosystems
 - Cost savings for residents and businesses
 - Improved ability for the community to bounce back from extreme weather events



GOOD NEWS – THERE ARE THINGS WE CAN DO!



Our government is providing funding to help cities achieve climate action and resilience goals

INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA)

\$550 billion available for investments in:

- Transportation
- Water
- Broadband
- Environmental remediation
- Power and energy
- Western water storage
- Resiliency

INFLATION REDUCTION ACT (IRA)

- \$391 billion available for climate action in sectors such as:
 - Health care
 - Climate
 - Air pollution
 - Clean energy
 - Conservation
 - Transportation
 - Clean fuels
 - Manufacturing



OMAHA CLIMATE ACTION AND RESILIENCE PLAN



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

The City of Omaha is working to develop a Climate Action and Resilience Plan to be a strategic roadmap that empowers our community to build climate resilience and strive for a more sustainable future.



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

The Omaha Climate Action and Resilience Plan will provide guidance on innovative solutions that will:



**Improve Quality
of Life**



Build Prosperity



**Enhance Community
Resilience**



**Further Climate
Justice**



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

- The plan will focus on strategies to:
 - Reduce greenhouse gas emissions
 - Prepare for and adapt to climate change impacts
 - Remove carbon dioxide from the atmosphere



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

- The developed Climate Action and Resilience Plan for the City of Omaha is intended to **guide action citywide and within municipal operations**
- The planning process will review and **establish overall goals and establish strategies and actions to achieve those goals**

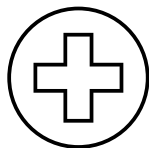


OMAHA CLIMATE ACTION AND RESILIENCE PLAN

Community-wide plans address broad climate action sectors:



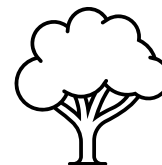
Water, Wastewater,
and Flooding



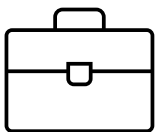
Climate Health
and Safety



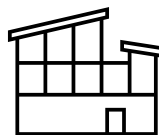
Food



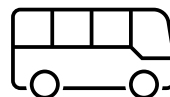
Greenspace and
Tree Canopy



Climate
Economy



Buildings and
Energy



Transportation
and Land Use



Solid Waste
and Recycling



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

There are concurrent planning efforts in the region that are funded under the United States Environmental Protection Agency's Climate Pollution Reduction Grant (CPRG):

- This Plan – Omaha Climate Action and Resilience Plan – focused on the City of Omaha and municipal operations
- Omaha-Council Bluffs Metro Plan – led by the City of Omaha and metro partners (Metropolitan Area Planning Agency – MAPA)
- State of Nebraska Plan



OMAHA CLIMATE ACTION AND RESILIENCE PLAN

The plan development process includes these critical steps:

1. Gathering data
2. Collaborating with stakeholders
3. Understanding and analyzing community needs
4. Developing goals, strategies and actions
5. Implementation



OMAHA CLIMATE DATA – VULNERABILITY ASSESSMENT

By 2050, Nebraska is expected to:

- Experience a 5-time increase in heat wave days
- Experience a 40% increase in flood risk, with higher frequency and severity
- Experience a 65% increase in risk of extensive summer drought

← 1895

Nebraska's Annual Temperature Trends

2021 →

Each stripe represents the temperature Nebraska averaged over a year. Blue = Below Average Red = Above Average

OMAHA CLIMATE DATA – VULNERABILITY ASSESSMENT

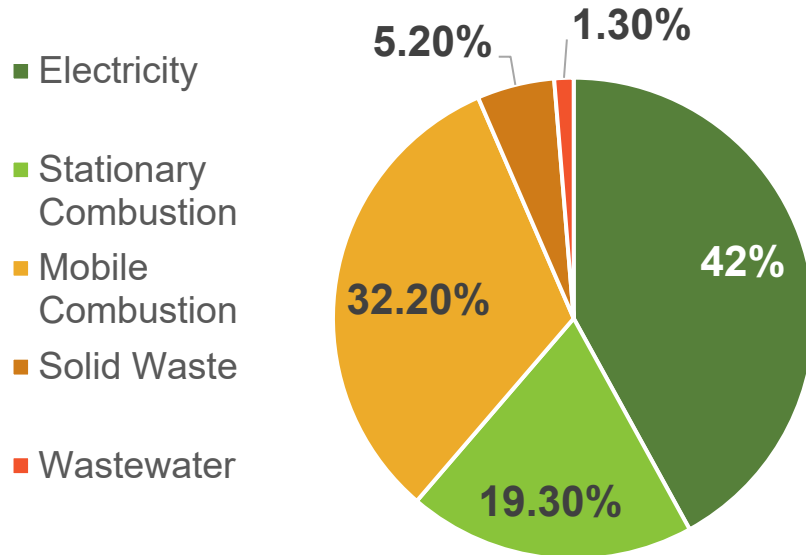
This increases the risk of:

- Extreme weather/temperature
- Extreme cold
- Flood and drought vulnerability
- Wildfires
- Air quality impacts
- Vector-borne diseases
- Food insecurity and food-borne diseases
- Water quality / quantity
- Water-borne illness
- Power and infrastructure failure



OMAHA CLIMATE DATA – GREENHOUSE GAS INVENTORY

Citywide Greenhouse Gas Emissions by Sector

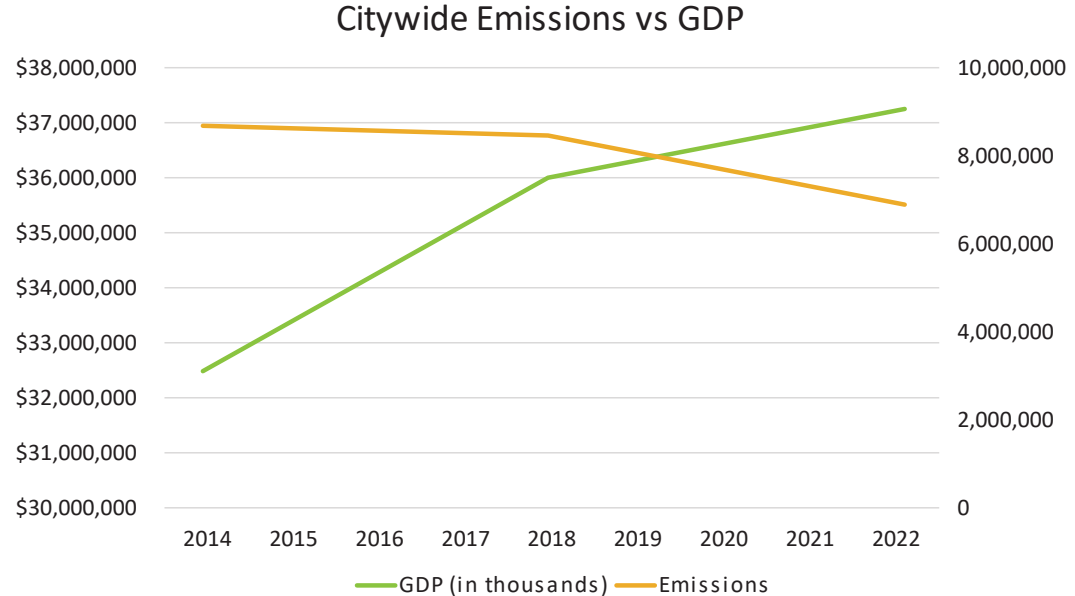


A Greenhouse Gas Inventory was conducted to calculate total emissions and identify the largest sources of emissions in Omaha.



OMAHA CLIMATE DATA – GREENHOUSE GAS INVENTORY

- Greenhouse gas emissions in the City of Omaha dropped 20% from 2015 to 2022
- Throughout this time, the population, gross domestic product (GDP) and employment increased in Omaha
- Economic growth can occur in the City of Omaha while greenhouse gas emissions decrease



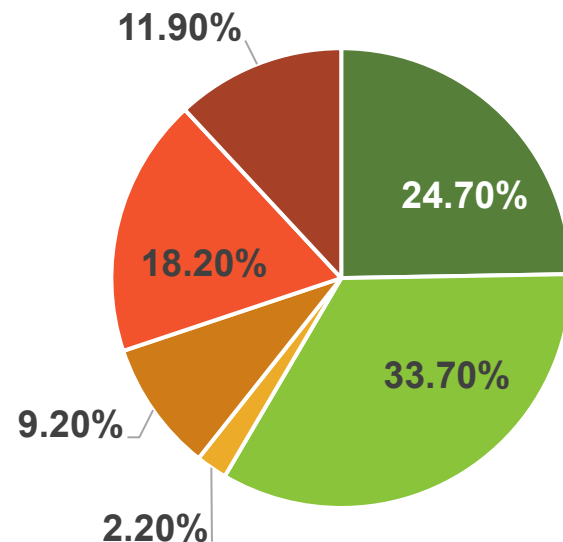
OMAHA CLIMATE DATA – GROUND COVER STUDY

Trees can provide benefits by:

- Acting as a filter for air pollution
- Removing carbon dioxide from the atmosphere
- Creating shade that protects the community from the heat
- Helping with stormwater management

City Average Ground Cover by Source

- Tree canopy coverage
- Lawn and grass coverage
- Open water coverage
- Agriculture land coverage
- Light impervious surface coverage
- Dark impervious surface coverage



OMAHA CLIMATE DATA – RENEWABLE POTENTIALS STUDY

- The City of Omaha has 778 solar power installations with a generating capacity of 6.4 megawatts (MW)
- The total solar installation capacity in Omaha is estimated to generate 9.3 gigawatt hours (GWH) annually, which is enough to power 900 homes
- Omaha could also utilize wind energy and no emission biomass power
- The total potential share of demand that could be covered by renewable energy sources in the City of Omaha by 2030 is 6.51%



WHAT CAN I DO ABOUT CLIMATE CHANGE?



WHAT CAN I DO ABOUT CLIMATE CHANGE?

Conserve energy
(turn off lights,
unplug electronics
when not in use)

Walk, bike, or take
public transportation
instead of driving

Recycle and
compost

Plant trees and
other native plants

Join organizations
or clubs that help
our environment

Keep learning about
our climate, the way
it changes, and
share what you
know with others



QUESTIONS?



Q&A

- We'll begin answering your questions
- We will start at the beginning and go in order of the questions / comments received (please be patient!)
- You may continue to submit comments / questions throughout Q&A



VIRTUAL INPUT ACTIVITY LINK AND INSTRUCTIONS

Please visit omacap.org to take provide input related to each of the broad climate action sectors:



Water, Wastewater,
and Flooding



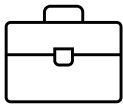
Climate Health
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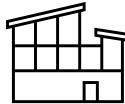
Food



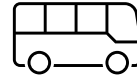
Greenspace and
Tree Canopy



Climate
Economy



Buildings and
Energy



Transportation
and Land Use



Solid Waste and
Recycling



Q&A

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NEXT STEPS



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and Flooding



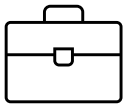
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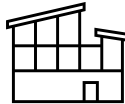
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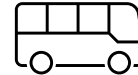
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THANK YOU!

