Climate change impacts all Met Council services

- Transportation
- Parks
- Wastewater
- Housing
Our Climate Vision

We reduce our contributions to greenhouse gas emissions in the region and make our services and facilities resilient to the impacts of climate change.
Climate Action Work Plan Structure

A three- to five-year plan (2023-2028)

**6 Commitments:** Directional statements that describe the desired end states for climate action in our operations and planning services.

**20 Strategies:** Overarching tactics to achieve commitments. The strategies are often cross-divisional in nature.

**73 Actions:** Specific actions and projects with defined timelines, outcomes, and divisional responsibilities.
## Our Core Commitments

1. We will incorporate **environmental justice principles** as we plan, implement, and evaluate our climate action work.

2. We will **accelerate emissions reductions from our operations** to achieve carbon neutrality.

3. We will accelerate **regional emissions reduction** through existing and new partnerships.

4. We will **reduce risks and impacts of climate change hazards** to our facilities and services.

5. We will support and collaborate with partners to **advance regional climate adaptation efforts**.

6. **Cross-cutting:** Expand staffing and training dedicated to climate work.
2023 Theme: Laying a strong foundation

Leadership
- Established cross-divisional Coordinating Team to champion and guide implementation
- Met Council Climate Work Group reactivates

Teams
Chartered six cross-divisional working groups to implement plan:
1. Energy Management
2. Climate Risk and Vulnerability
3. Climate-Focused Workforce
4. Environmental Justice
5. Regional Climate and Natural Systems Planning

Tracking Progress
- Created a tool to track progress across all 73 actions
- Developed a resource to report metrics
2023 Theme: Taking off

Most actions are on track

- 2023 was the single largest action start year in the CAWP
- **35 of the 73 actions** were scheduled to start in 2023
  - **We are making good progress**: 27 of the 34 actions have begun (79%)
  - **Barriers** to starting the remaining actions:
    - Backfilling and adding staff
    - Need for designated leadership on certain actions
    - Timeline, including intense legislative session
2023 Theme: Starting with top priorities

We are making strong progress on Priority 1 actions

• 26 actions are considered “Priority 1, and 95% of those actions are under way. For example:
  • **Complete**: Establish cross-divisional working groups
  • **On track**: Identify internal workforce development needs
  • **On hold**: Enhance technical partnerships with academic institutions
  • **Start 2024 or later**: Build on Transportation Policy Plan work
2023 Theme: Variation in commitments

Some commitments build upon existing work, while others need new processes

- Commitment 2 (emissions reductions) builds on existing staff expertise, collaboration, and projects to reduce greenhouse gas emissions
- Commitment 4 (adapting operations) requires creating new processes among groups that are new to each other
Commitments 2 and 3: Reducing emissions

Commitment 2:
We will **accelerate emissions reductions from our operations** to achieve carbon neutrality.

Commitment 3:
We will accelerate **regional emissions reduction** through existing and new partnerships.
The Council emits a large amount of greenhouse gases

2023 Total Met Council Emissions:
~252,000 metric tons CO$_2$e

~49,000 homes’ electricity use for one year
Using 2.5 people per household; about the size of Rochester, MN (Third largest city in Minnesota)

~56,100 cars driven for one year
Using 1 car per adult; larger than Maple Grove, MN
Council GHG emissions trending down

Most of the Council’s emissions come from electricity and vehicles

- Purchased energy emissions have trended down since 2008 primarily because of utility improvements reducing grid emission factors and energy efficiency measures.

- Mobile combustion dipped in 2020 when transit service decreased and tends to reflect the level of service that transit provides. Bus fuel economy improvements have also reduced emissions.

*Note that numbers for Wastewater Process and a few miscellaneous items in stationary combustion have been estimated.
By division, MCES and Metro Transit are the largest emitters

- Most of MCES’ emissions come from energy used in the wastewater treatment process.
- Emissions from Metro Transit include bus service, light rail propulsion, and facility operations.
- Emissions from RA and CD come from operating 390 Robert Street, which is a very small portion of total Council emissions.

*Note that 2023 numbers for Wastewater Process and a few miscellaneous items in stationary combustion have been estimated due to a delay in data collection.*
Project Highlight 1: Fleet transition

About 25% of the Council’s total emissions are from the revenue bus fleets.

Metro Transit
• ~13% of the Council’s total emissions
• Zero Emission Bus Transition Plan continues

Metropolitan Transportation Services
• ~12% of the Council’s total emissions
• ZEB Transition Plan completed in 2023
• MTS Facilities Plan to be completed Q1 2025

All revenue fleets now have zero emission transition plans. We are well situated to continue to transition the fleet.
Project Highlight 1: Fleet transition

Transit emissions reflect the level of service, rate of fuel efficiency improvements, and rate of vehicle electrification.

Despite increasing service in 2023, Metro Transit emissions declined slightly because of fuel efficiency improvements. MTS emissions increased in 2023, reflecting an increase in service.
Project Highlight 2: Reducing energy emissions

The Council builds on a history of opting for renewable energy sources and reducing our energy use.

Adding renewable energy
• Solar at 6 facilities and 35 bus shelters
• Geothermal at 6 facilities
• Community solar gardens hosted at 3 ES facilities
• ES and MT subscribe to additional community solar gardens
• Pursuing District Energy

Reducing energy consumption
• Energy conservation
• Process improvements
• Critical steps because we often cannot reduce our operations, but we can make them more energy-efficient

We are working across divisions to develop energy emissions reduction processes.
Commitments 4 and 5: Adapting to a changing climate

Commitment 4:
We will reduce risks and impacts of climate change hazards to our facilities and services.

Commitment 5:
We will support and collaborate with partners to advance regional climate adaptation efforts.
Measuring and tracking adaptation efforts

Measuring our ability to adapt to climate change is complex

• Similar challenges to energy: How do we adapt our diverse operations?

In 2023, we created the Climate Risk and Vulnerability Group to address this work on a Council-wide scale

The team works to:

• Create common understanding related to climate risk, impacts, and opportunities.
• Leverage existing tools
• Bring together key teams from all divisions
• Plan proactively
• Use future climate projections
Project Highlight 3: Adaptation

Localized flood mapping tool

- A mapping tool that shows areas throughout the region that are prone to localized flooding
- Critical uses for both Council operations and as technical assistance in the region
- Received $200,000 to update the tool over the next year, including hiring a staff person

Left: Roadway flooding near Shakopee
Commitment 1: Environmental justice

We will incorporate environmental justice principles as we plan, implement, and evaluate our climate work.
Embedding environmental justice in our work

We are creating processes to actualize environmental justice in climate work

- Step 1: Identify environmental justice concerns within the Climate Action Work Plan itself
- Step 2: Create processes to address environmental justice as we implement the climate action work plan

We are on the leading edge of this work: Nationally, very few agencies have explicitly incorporated environmental justice into their climate work.
Project Highlight 5: Environmental Justice Playbook

Developed an Environmental Justice Playbook

- Creates high-level awareness and suggested processes to embed environmental justice into our climate planning work
- Contextualizes environmental justice beyond the federal definition
- Working to roll out the Playbook to key stakeholders across the Council

Aligned with the Imagine 2050 EJ work

- Climate Action Work Plan efforts laid the foundation for the regional environmental justice process
- Staff teams work together very closely
Commitment 6: Cross-cutting efforts

Central strategy:
Expand staffing and training dedicated to climate work.
Project Highlight 6: Workforce development

We are building capacity to achieve our ambitious climate commitments

1. Provide training for existing staff
   • Envision Sustainable Infrastructure Training: Q2-Q4 2024
2. Understand gaps in existing workforce
   • Recommendations to come in May-June 2024

We are on track to meet our commitment to identify internal workforce development needs.

Further conversation to come following needs assessment.
Aligns with Imagine 2050 efforts

- The CAWP was written prior to the Regional Development Guide to ensure that it would support and align with regional planning
- Areas of alignment include:
  - Emissions reduction goals and strategies
  - Adaptation and resilience goals and strategies
  - Staff expertise
Looking Ahead: 2024

Accelerating our work

- Build on the foundation built in 2023
- Needs and gaps
  - Continued funding streams
  - Additional dedicated staff, per recommendations to come in May-June 2024
- High-level staff accountability to our commitments by, among other things, publicly reporting our progress

The Climate Action Work Plan’s efforts align with Imagine 2050’s goal to Lead on Climate Change. We can build on our foundational efforts to demonstrate local, state, and national leadership.
# Climate Action Work Plan Team Members

## We’re on this together

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<tr>
<th>Community Development</th>
<th>Environmental Services</th>
<th>Metro Transit</th>
<th>Regional Administration</th>
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<td>- LisaBeth Barajas*</td>
<td>- John D. Clark</td>
<td>- Laura Bretheim*</td>
<td>- Lisa Belland</td>
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<td>- Jenessa Carlisle</td>
<td>- Craig Edlund</td>
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*Action or Working Group Leads
Questions?

What else would you like to know?

• Additional metrics that we have not shared?
• Projects that are of interest?

Partnerships:

• Are there additional people we should connect with in this work?
• Are there external partners or activities to be aware of as we proceed?
Thank You

Climate Action Work Plan Coordinating Team
LisaBeth Barajas - Community Development
Jeff Freeman - Metro Transit
Kathy Matter - Regional Administration
Sam Paske - Environmental Services
Amy Vennewitz - Metropolitan Transportation Services
Jeanne Landkamer – Regional Administration Communications
Laura Bretheim – Metro Transit Project Coordination
2023 Emissions Closer Look

2023 Met Council Greenhouse Gas Emissions

- Metric tons CO2e

Building and Process Electricity
Building and Process Heat
Effluent Discharge
Nitrification/Denitrification
Bus Fleet
Building & Process Heat
Rail Fleet
Metro Mobility
Contracted Services
Non-Rev Fleet
Miscellaneous
Long-term emissions reductions

Met Council has reduced emissions 32% since 2008

- Emissions dropped 19.7% between 2019 and 2020 due to COVID-19 service reductions.
- Emissions are strongly tied to the level of transit service we provide.
Visualizing solar power

What does 1,000 kilowatts of solar power look like?

$1,0000\ kW = 1\ MW$ (megawatt)

1 Metro Transit Police Building Roof = 40 kW
25 MTPD roofs = 1,000 kW

1 Empire Plant solar array = 6-8 acres = 2 MW
Half of one Empire solar array = 1,0000 kW