



Climate Action Work Plan Annual Report Metropolitan Council

April 10, 2024



Climate change impacts all Met Council services



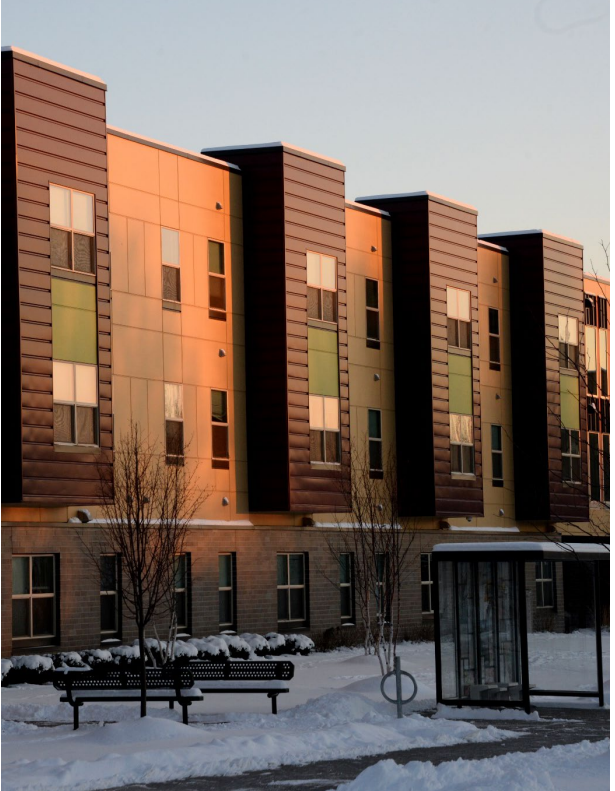
Transportation



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**

Our vision for the Metropolitan Council is that 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

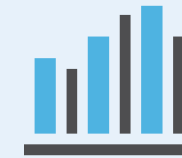
- Established cross-divisional Coordinating Team to champion and guide implementation
- Met Council Climate Work Group reactivates



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
6. Greenhouse Gas Emissions Tracking

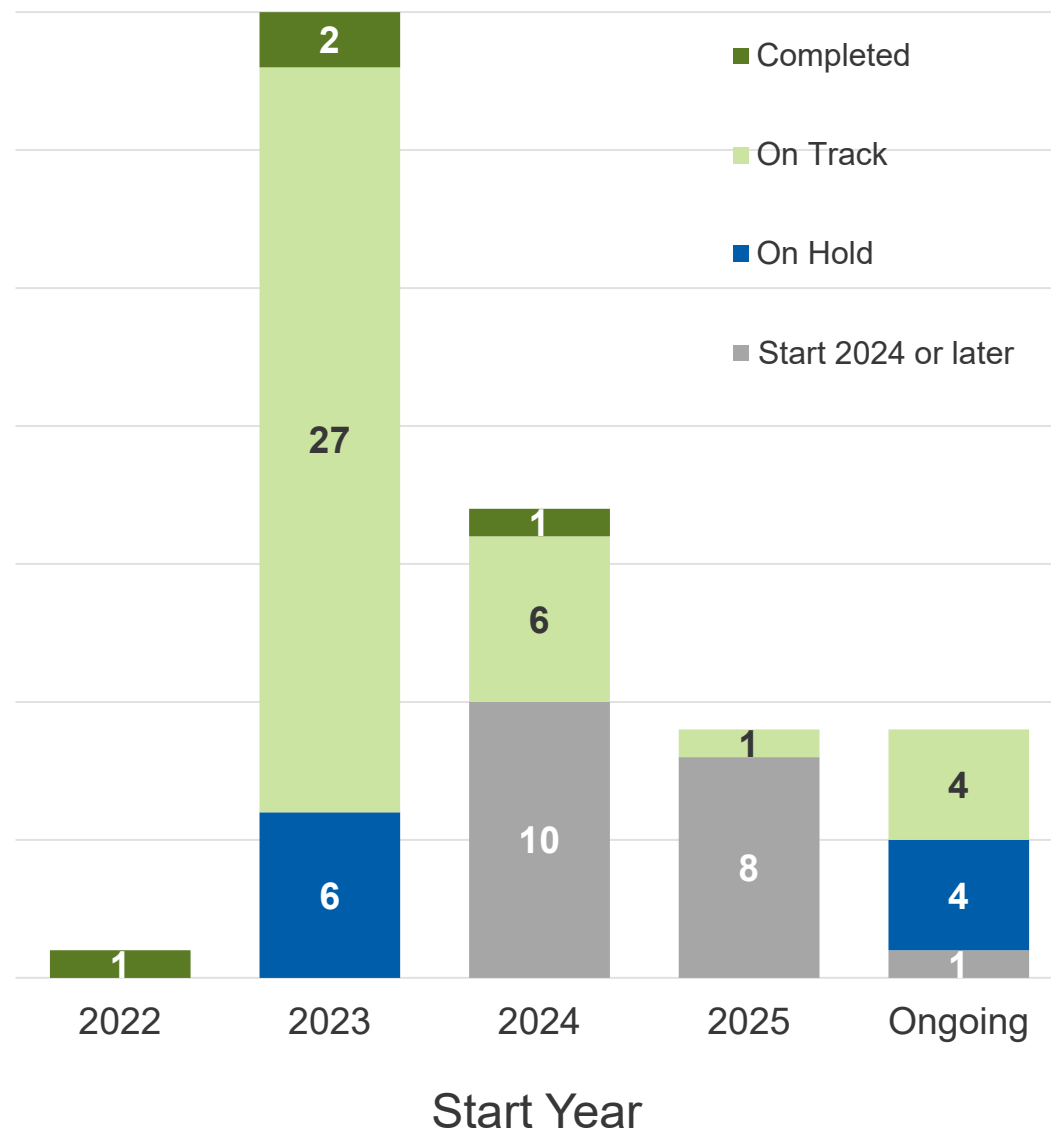


Tracking Progress

- Created a tool to track progress across all 73 actions
- Developed a resource to report metrics

2023 Theme: Taking off

Action Status by Start Year

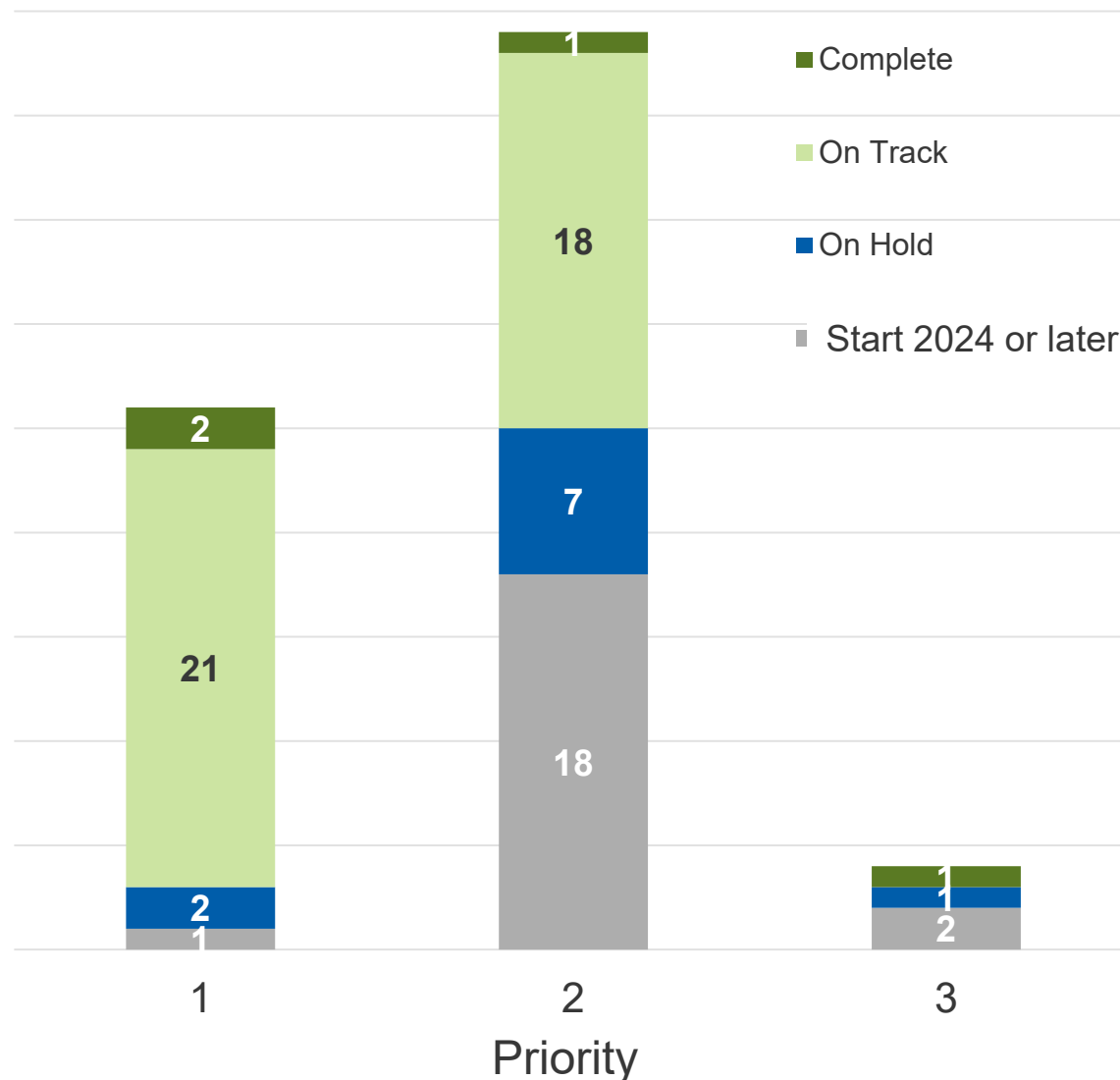


Most actions are on track

- 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

Action Status by Priority

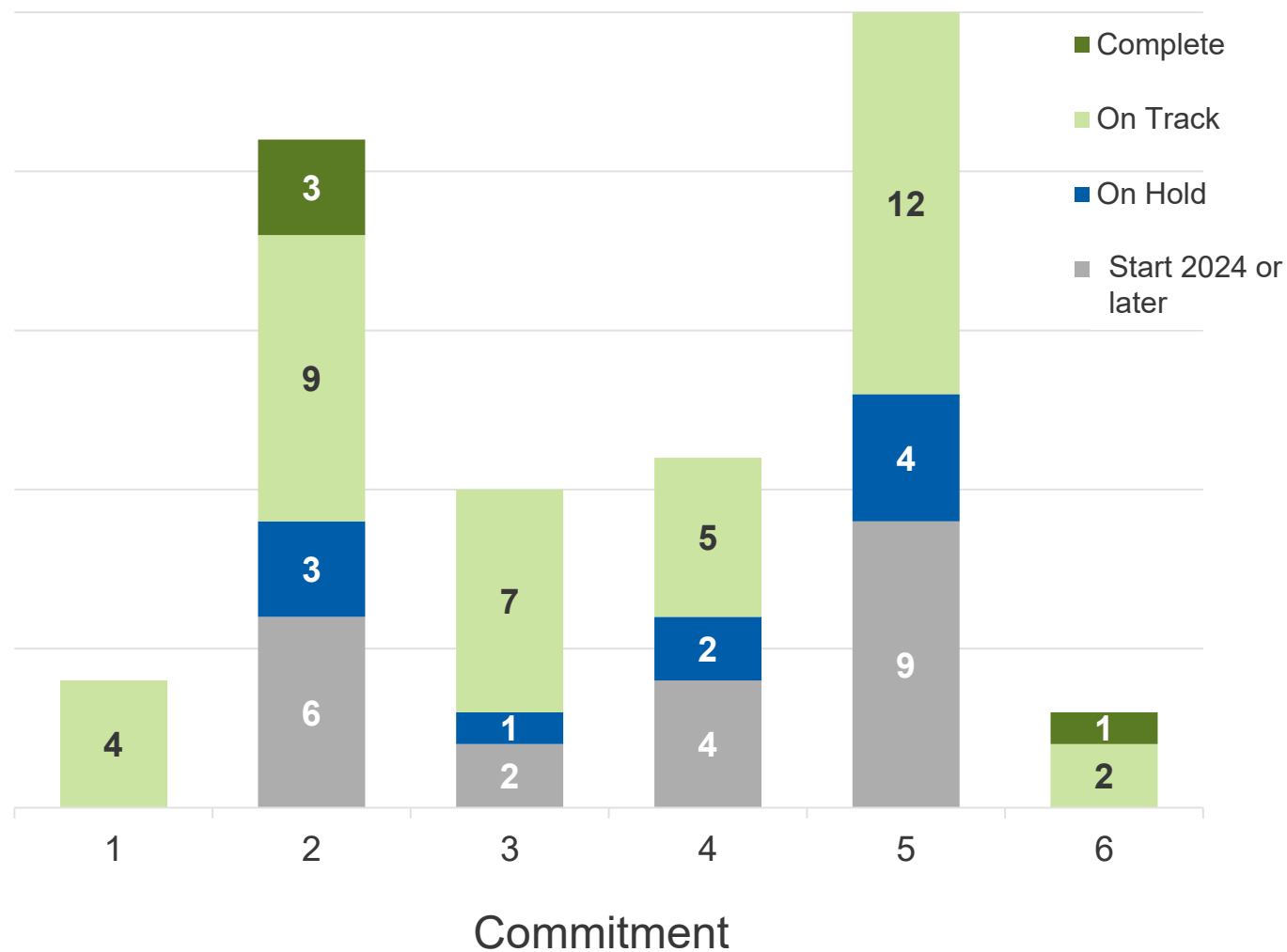


We are making strong progress on Priority 1 actions

- **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

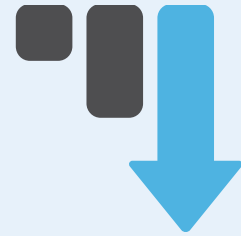
Action Status by Commitment



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

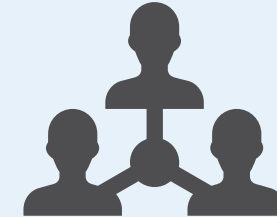
- Commitment 2 (emissions reductions) **builds on existing staff expertise**, collaboration, and projects to reduce greenhouse gas emissions
- Commitment 4 (adapting operations) **requires creating new processes** among groups that are new to each other

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 CO₂e



OR



~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)

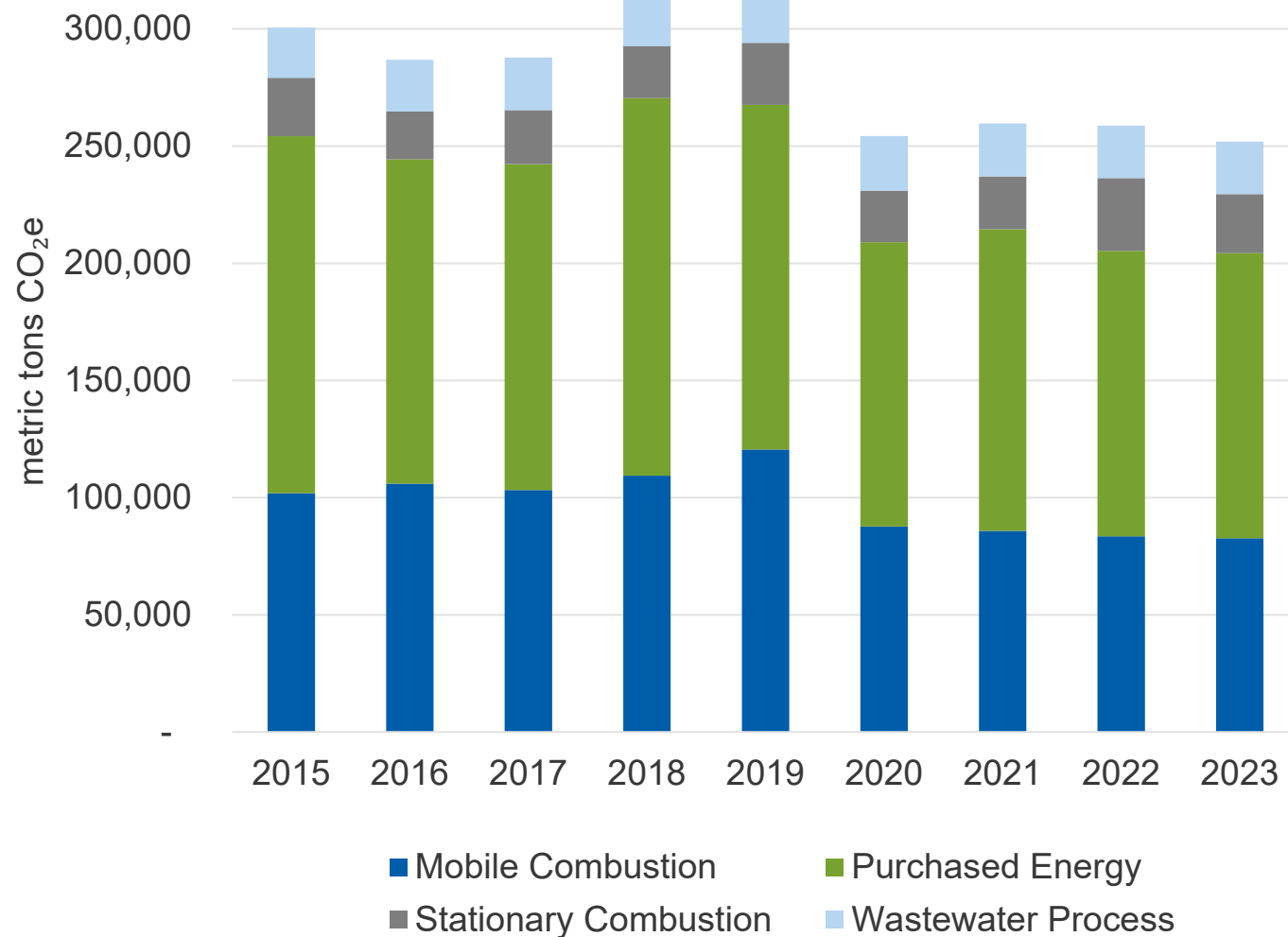
~56,100 cars
driven for one year

Using 1 car per adult; larger than Maple Grove, MN



Council GHG emissions trending down

Met Council Greenhouse Gas Emissions by Source: 2015 - 2023



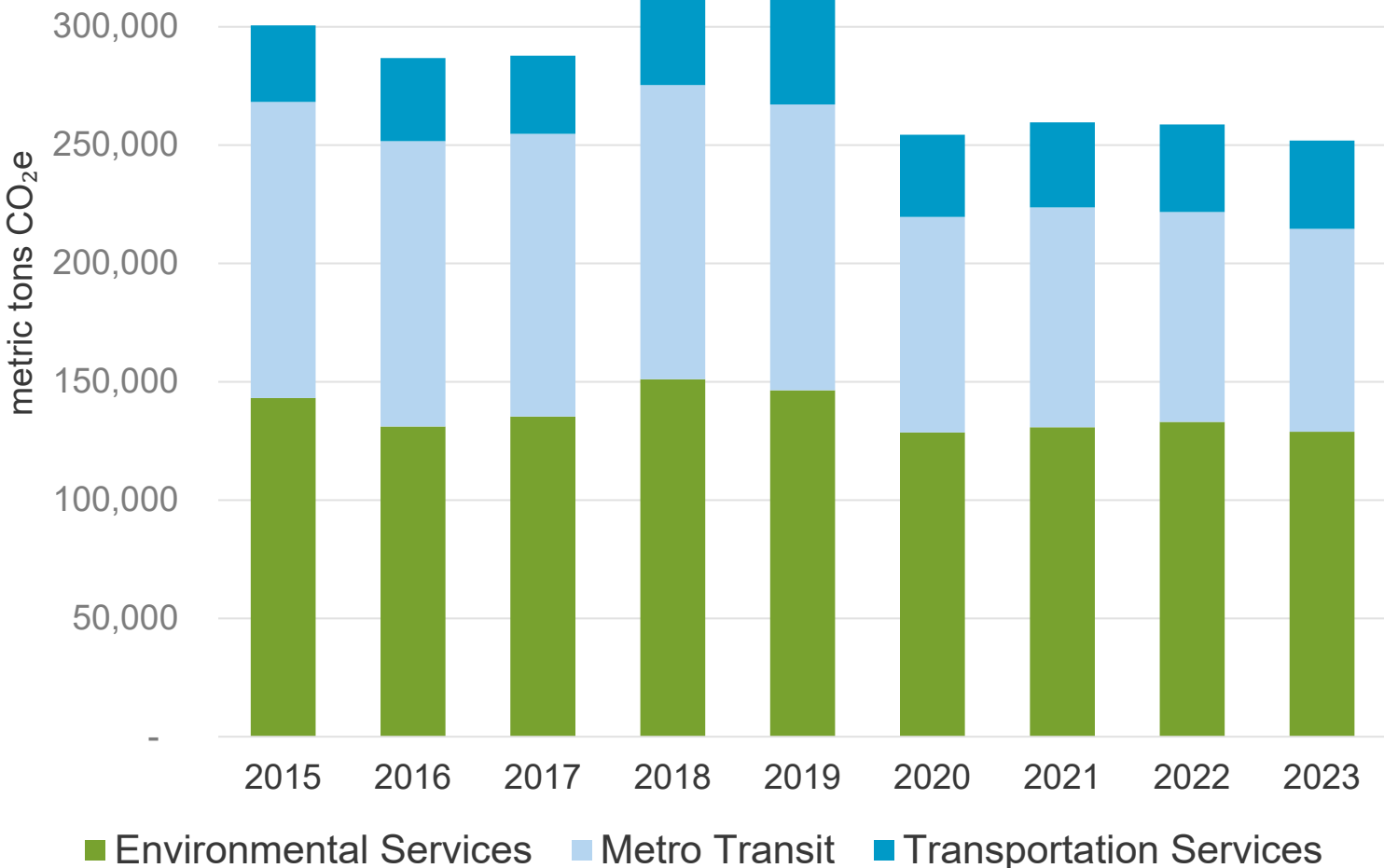
Most of the Council's emissions come from electricity and vehicles

- 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.

Council GHG emissions trending down

Met Council Greenhouse Gas Emissions by Division: 2015 - 2023



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.

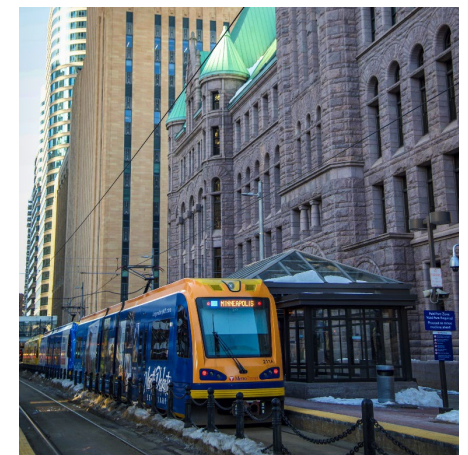
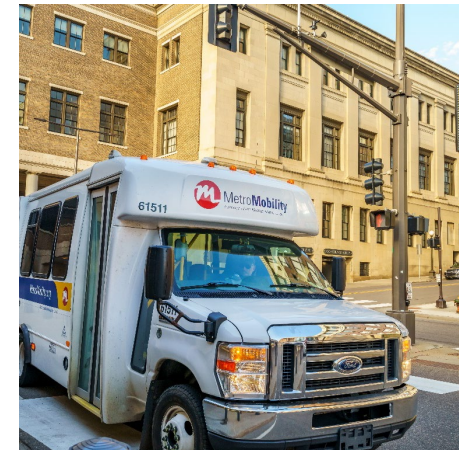
Metro Transit

- ~13% of the Council's total emissions
- Zero Emission Bus Transition Plan continues

Metropolitan Transportation Services

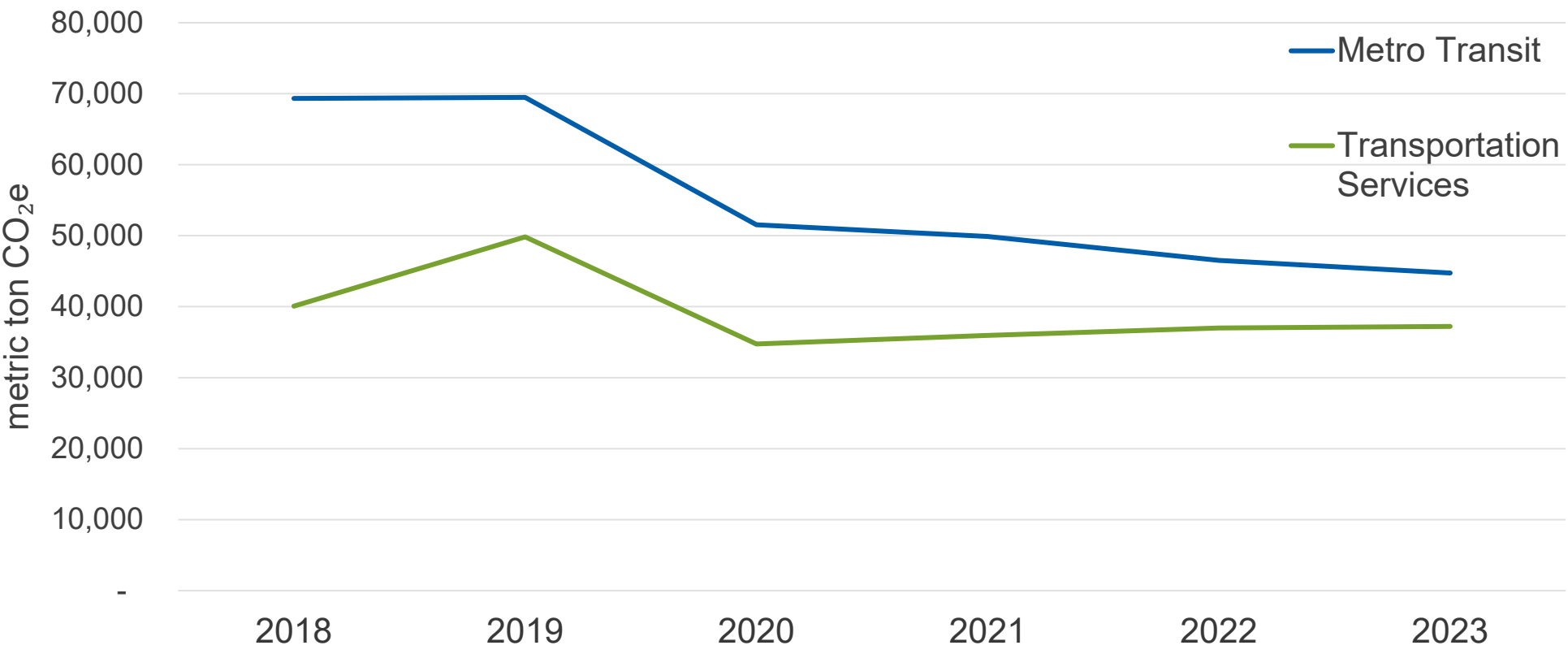
- ~12% of the Council's total emissions
- ZEB Transition Plan completed in 2023
- MTS Facilities Plan to be completed Q1 2025

All revenue fleets now have zero emission transition plans. We are well situated to continue to transition the fleet.

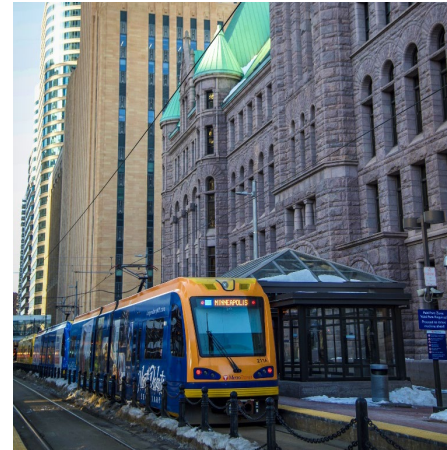
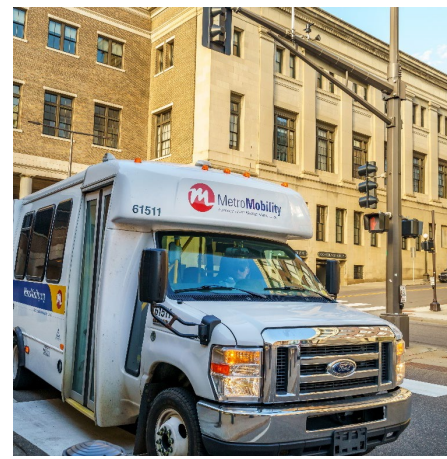


Project Highlight 1: Fleet transition

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

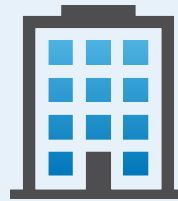
- Solar at 6 facilities and 35 bus shelters
- Geothermal at 6 facilities
- Community solar gardens hosted at 3 ES facilities
- ES and MT subscribe to additional community solar gardens
- Pursuing District Energy

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:

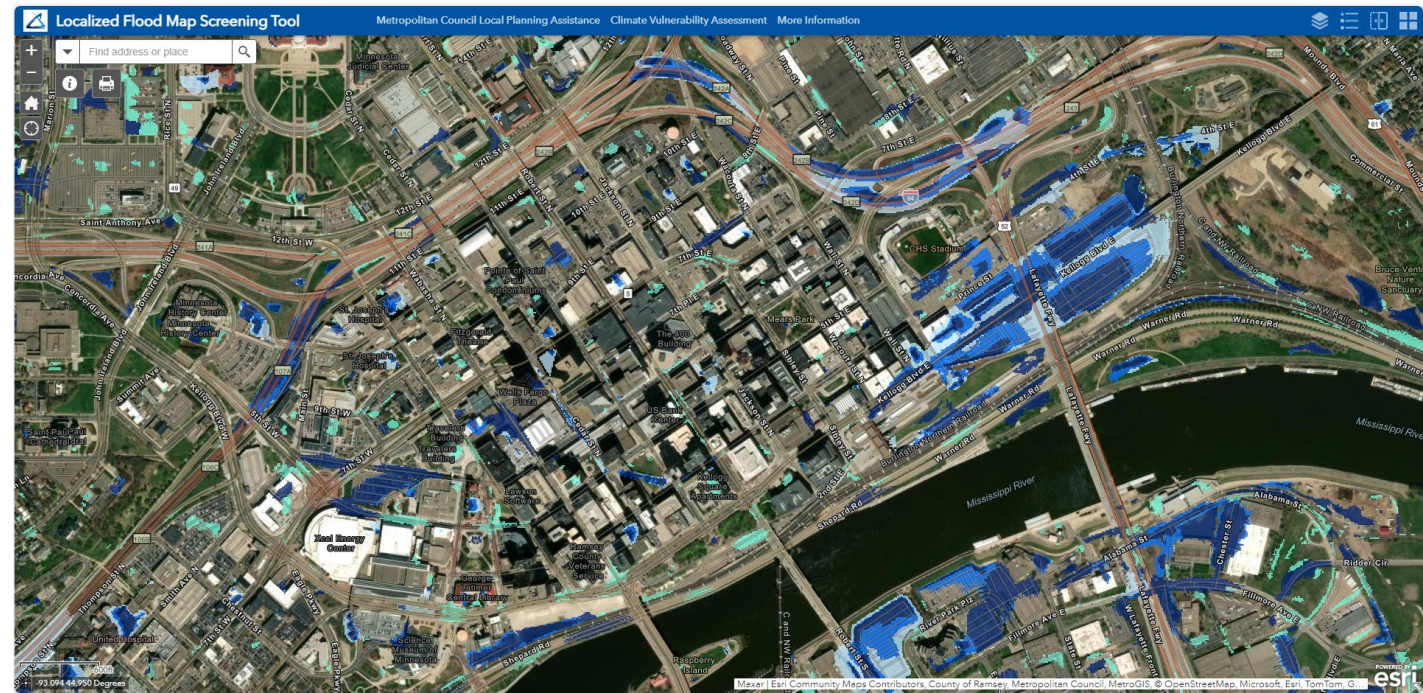
- Create common understanding related to climate risk, impacts, and opportunities.
- Leverage existing tools
- Bring together key teams from all divisions
- Plan proactively
- Use future climate projections

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

COMMITMENT 4. Reduce risks and impacts of climate change hazards to our facilities and services.

STRATEGY 1. Incorporate adaptation measures into facility and services planning, design, operations, and maintenance.

	ENV JUSTICE	LEAD	TYPE OF WORK	START DATE	END DATE	ENABLING	PRIORITY
<p>A1. Develop a climate vulnerability screening tool to identify and prioritize Met Council-owned facilities and properties for in-depth climate preparedness reviews. A climate preparedness review should look at the adequacy of existing adaptation measures and emergency plans to respond to major climate events and make recommendations for improved adaptation and resilience.</p>		ES + MT	Enhance	2023	Ongoing	Yes	2

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



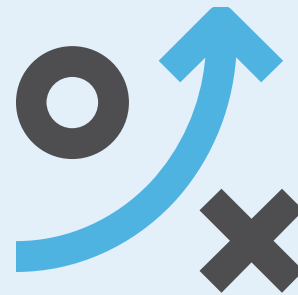
Developed an Environmental Justice Playbook

- 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.

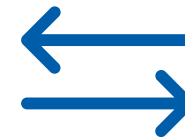
Project Highlight 7: Aligning our work

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



IMAGINE²⁰₅₀
the region's plan for an equitable and resilient future



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

Community Development

- LisaBeth Barajas*
- Jenessa Carlisle
- Heather Giesel
- Sarah Gong*
- Gillian Greenberg
- Paul Hanson
- Yumi Kashihara
- Ryan Klupacs
- Stephanie Paulsen
- Kevin Phan
- Kenny Smith
- Terri Smith
- Angela Torres*
- Peter Wilfahrt
- Eric Wojchik*
- Zoey Yandell
- Peter Wilfahrt

Environmental Services

- John D. Clark
- Craig Edlund
- Matt Gsellmeier
- Andrea Kaufman
- Ben Keenan
- Jen Kostrzewski*
- Chuck LaPierre
- Sam Paske*
- Trevor Prater
- Deborah Rose
- Emily Schon
- Ned Smith
- Sara Smith
- Judy Sventek*
- Bert Tracy
- Dan White
- Jenn Zuchowski

Metro Transit

- Laura Bretheim*
- Victoria Dan
- Rick DeMarchis
- Carrie Desmond*
- Jeff Freeman*
- Mercedes Gohl*
- Jim Harwood
- Marilyn Porter
- Kristin Thompson

Metropolitan Transportation Services

- Paul Colton*
- Tony Fischer
- Jed Hanson
- Heidi Schallberg
- Amy Vennewitz*

Regional Administration

- Lisa Belland
- Michael Cowell
- Kelly Jameson
- Melissa Johnson
- Jeanne Landkamer*
- Kathy Matter*
- Greg Kaslow

**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

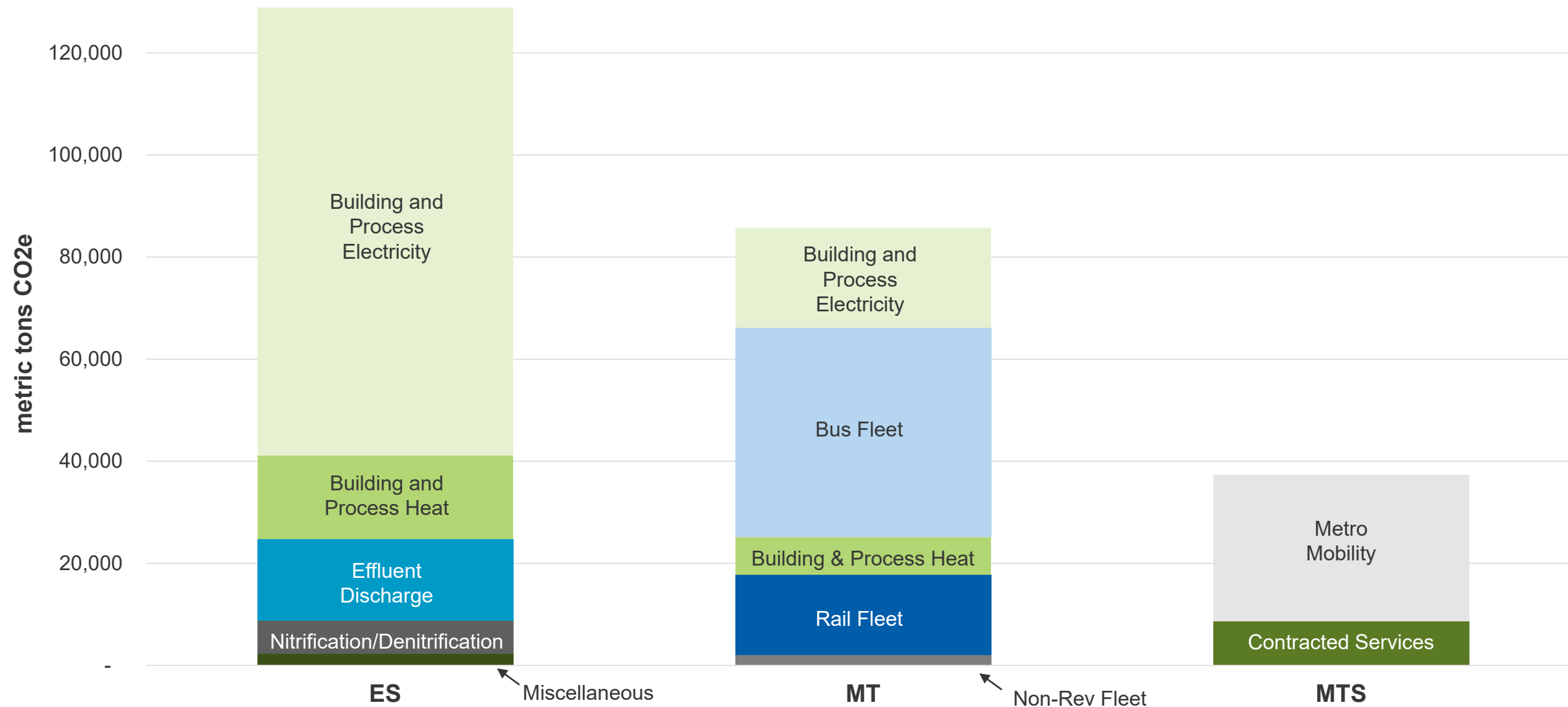
Jeanne Landkamer – Regional Administration Communications

Laura Bretheim – Metro Transit Project Coordination



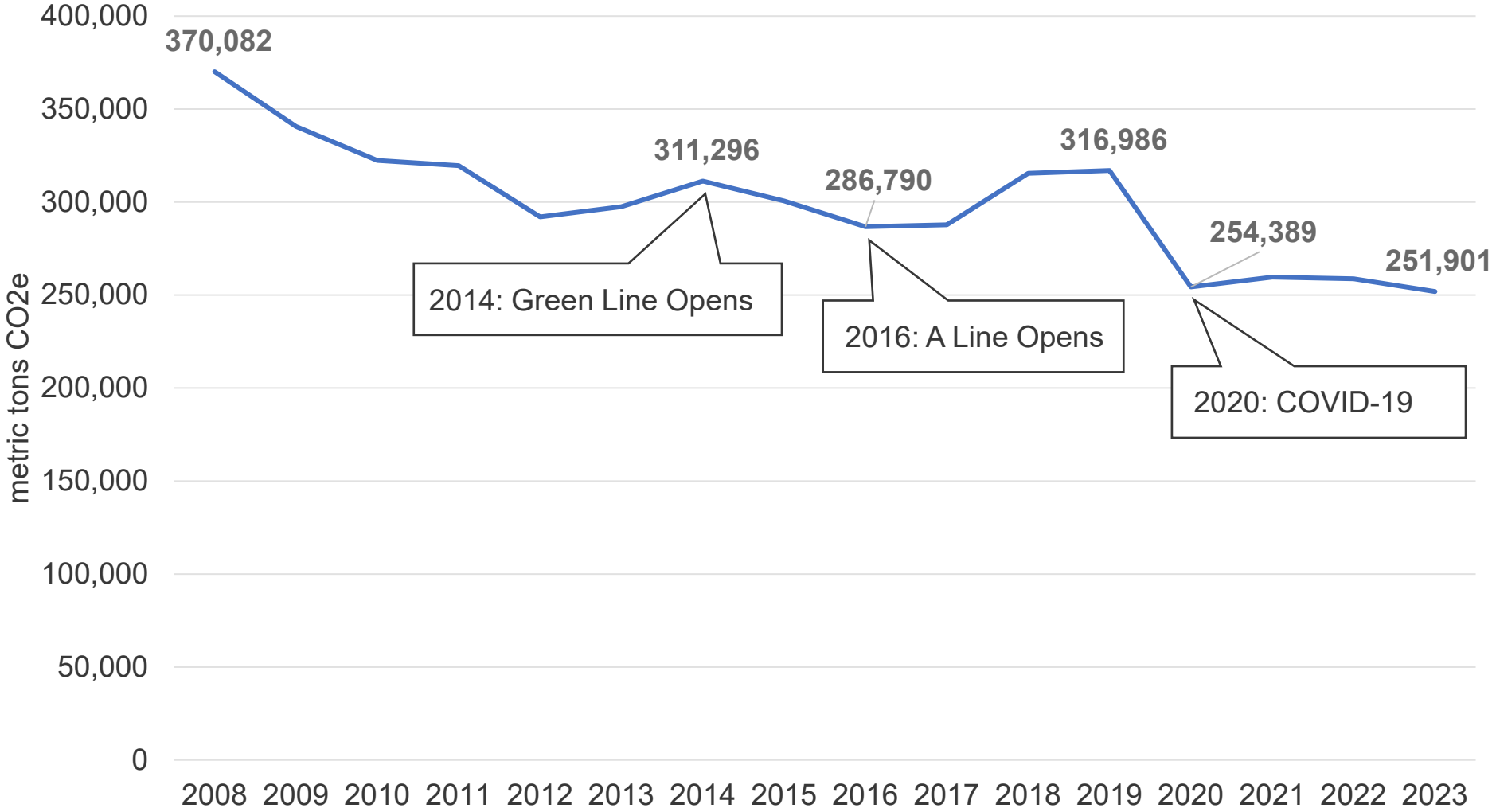
2023 Emissions Closer Look

2023 Met Council Greenhouse Gas Emissions



Long-term emissions reductions

Met Council Greenhouse Gas Emissions: 2008-2023



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?

1,000 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 = 1,000 kW