



SAINT PAUL
MINNESOTA

SAINT PAUL CLIMATE WORK

March 13, 2024





SAINT PAUL CLIMATE ACTION & RESILIENCE PLAN

A FRAMEWORK FOR OUR COMMUNITY
TO ADDRESS THE IMPACT OF CLIMATE CHANGE



DECEMBER 2019

City of Saint Paul Mayor
Melvin Carter



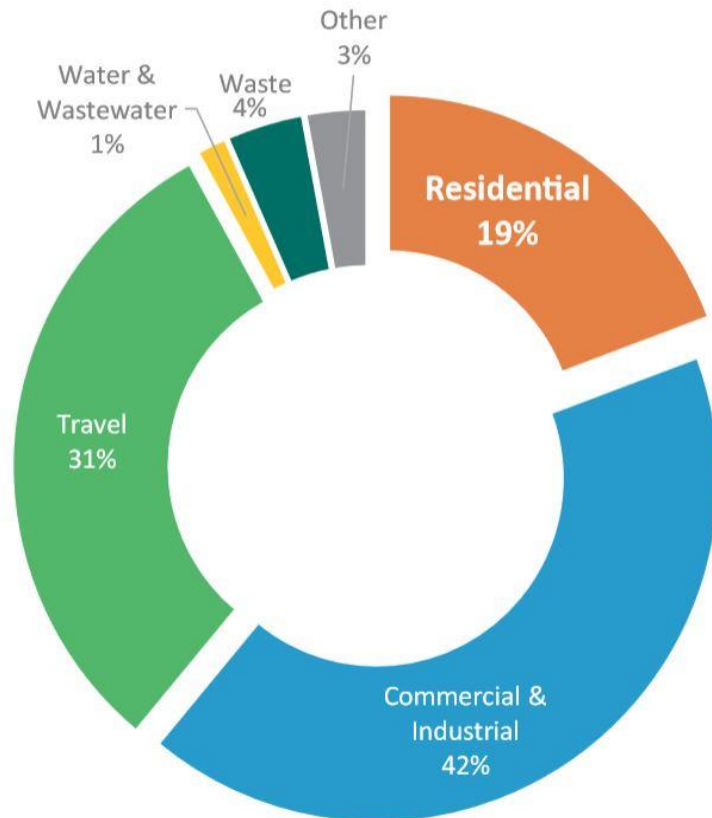
CARP Targets and Goals

- Net Zero greenhouse gas emissions community-wide by 2050
- 50% reduction in GHG from 2015 by 2030
- Net zero GHG in City Operations by 2030
- Equitable Approach – protect and benefit vulnerable neighborhoods and populations



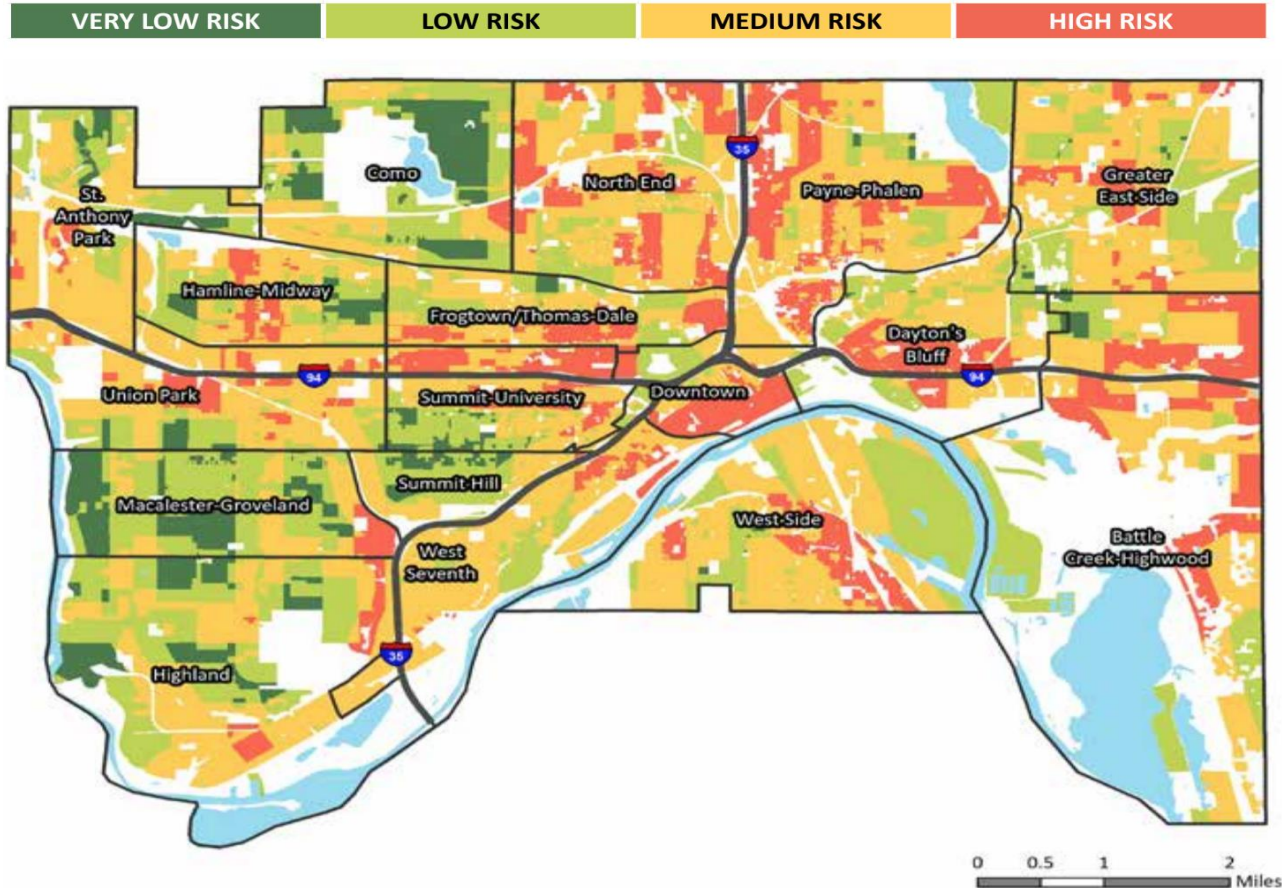
Greenhouse Gas Emissions in Saint Paul

Comm/Industrial	42%
Residential	20%
Transportation	<u>31%</u>
Total	93%





Composite Vulnerability: socio-economic, urban heat, flooding, tree canopy, air pollution





Community-wide Greenhouse Gas Emissions

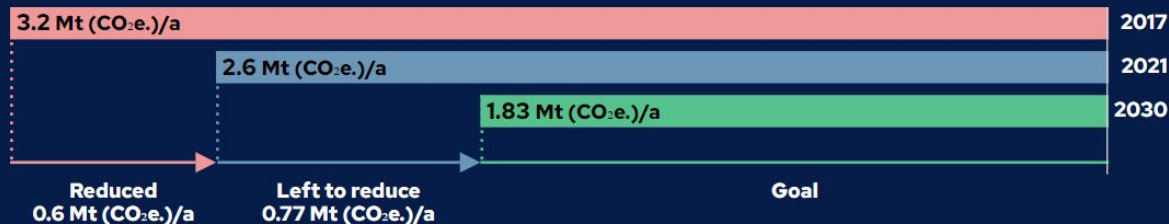
Saint Paul Climate Action Dashboard

The City of Saint Paul is determined to fight climate change in an equitable and inclusive manner. The Climate Action & Resilience Plan (CARP) aims to achieve carbon neutrality in city operations by 2030 and citywide by 2050.

This Dashboard was created to showcase the comprehensive and inclusive efforts being undertaken by the City and its partners. It's a powerful example of how local action can make a global impact.



Community-wide Greenhouse Gas Inventory



Focus Areas

- Sustainable Transportation
- Reduce energy cost burden/transition to clean energy
- Reduce emissions in City operations
- Workforce development and community wealth-building
- Improve tree canopy, esp. in urban heat island areas





Climate Justice Advisory Board

- Established 2021 by a 2020 Council Resolution
- Advise Mayor and Council to ensure that climate action policy, programs, projects have equitable impacts
- Currently 11 members including 3 youth, with some open seats
- Current Committees – CARP Update and Rethinking I-94



Federal Applications Awarded/Submitted

Awarded

- \$1.44 million USDOE for EV Spot/Envie expansion
- \$2 million for Urban and Community Forestry (Great River Greening another \$10 million to work in Saint Paul and 3 other communities)
- \$2 million Congressionally directed for geothermal at Como Primates
- Reconnect Rondo/City \$2 million Reconnecting Communities
- \$317k EECBG for City Building Decarb Plan

Pending

- \$500k Energy Future Planning Grant
- Reconnect Rondo/Rondo Land Trust RC/NAE -- \$100 million



Federal, State, Local Opportunities

EPA Climate Pollution Reduction Grant Program

- Waste Heat to Decarbonize District Energy
- EV Spot Network/Envie Carshare Expansion
- Low-income res. weatherize and decarb



Other New Funding Sources

- MN Green Bank – support application for Geothermal at The Heights
- State and Federal tax credits and rebates --
 - rebates for residential program being set up by Energy Office
 - “direct pay” for City geothermal and solar (NECC, Como)
- Solar for All (State applied for \$100 million)
- Solar on Public Buildings Grant Program – support new construction projects
- New Sales Tax
 - sustainable transportation investments
 - Parks facilities decarbonization (starting with Como)

A conceptual image showing a lightbulb with a globe of the Earth inside it. The lightbulb is resting on a small, light-colored wooden house-shaped base. The entire scene is reflected on a smooth, dark surface below. The background is a soft-focus outdoor setting with warm, golden light.

Energy Burden

- Definition: The percentage of household income spent annually on energy
- Twin Cities Metropolitan Area Average: 2.32% (2016)
- 10 census tracts in Saint Paul with the highest median energy burden range from 4.2% to 12%
- Over 42,000 Saint Paul households have an energy burden of 4% or above
- Saint Paul Goal: Within 10 years, lower the energy burden so that no Saint Paul household spends more than 4% of household income on energy costs (CARP)

Healthy Homes Saint Paul

- \$1,000,000 American Rescue Plan
- Provide pre-weatherization services to low-income households
- RFP soon





Electric Heat Affordable Rental Program (EHARP)

- Pilot Project: City of Saint Paul - Xcel Energy - Center for Energy & Environment – Energy Cents Coalition
- Goals:
 - Reduce energy costs for under-resourced renters
 - Replace inefficient electric heat with efficient cold climate Air Source Heat Pumps (ccASHP)
- Anticipated Participation:
 - 10 Efficiency Improvements (approximately 33 units)
 - 10 ccASHP installs
 - 5 Heat Pump Water Heater replacements



Goals for Municipal Operations

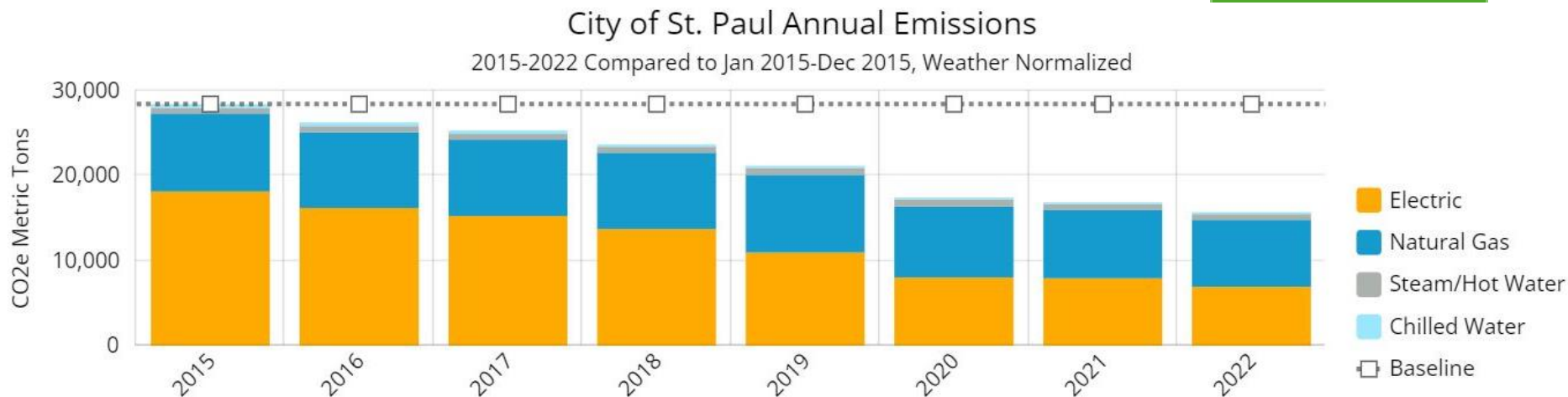
Inspire through Municipal Leadership	Municipal Targets	2019-2025 Targets	2025-2030 Targets
Achieve carbon neutrality in municipal operations by 2030.	Annual GHG reductions	-9%/yr	-9%/yr
	Annual renewable energy generation	10%/yr	15%/yr
	Annual fleet emissions reductions	-9%/yr	-9%/yr

- 150+ city-owned & operated buildings totaling 2.3 million square feet
- Annual energy costs for buildings ~ \$4 million



Emissions from Municipal Buildings

↓ -44.75%





Improving Energy Efficiency of City Buildings

- Energy efficiency projects at 12 buildings in 2023
 - LED lighting upgrades at 8 community/recreation centers
 - HVAC equipment & demand response sensor replacements at 2 libraries
 - New Building Automation System at Merriam Park Library
- Projects will collectively save more than 423,000 kWh electricity & 4800 therms of natural gas annually



Building Projects & Plans for 2024

- More energy efficiency projects!
 - *Lighting upgrades at Police HQ, Eastern & Western District Stations*
- New construction aligning with SB2030 Sustainable Building Guidelines
 - *North End Community Center*
 - *Fire Station #7 (future home of 1st electric fire truck!)*
- 3 buildings converting to geothermal at Como Zoo campus
- Developing Municipal Buildings Decarbonization Plan



Evie Carshare

By the Numbers 2023

- 8,500 carshare members (up from 2,200 in 2022)
- 175 shared electric vehicles
- 127,000 trips (57,000 in 2022)
- 1.3 million emission-free miles driven (3 trips to the moon and back)



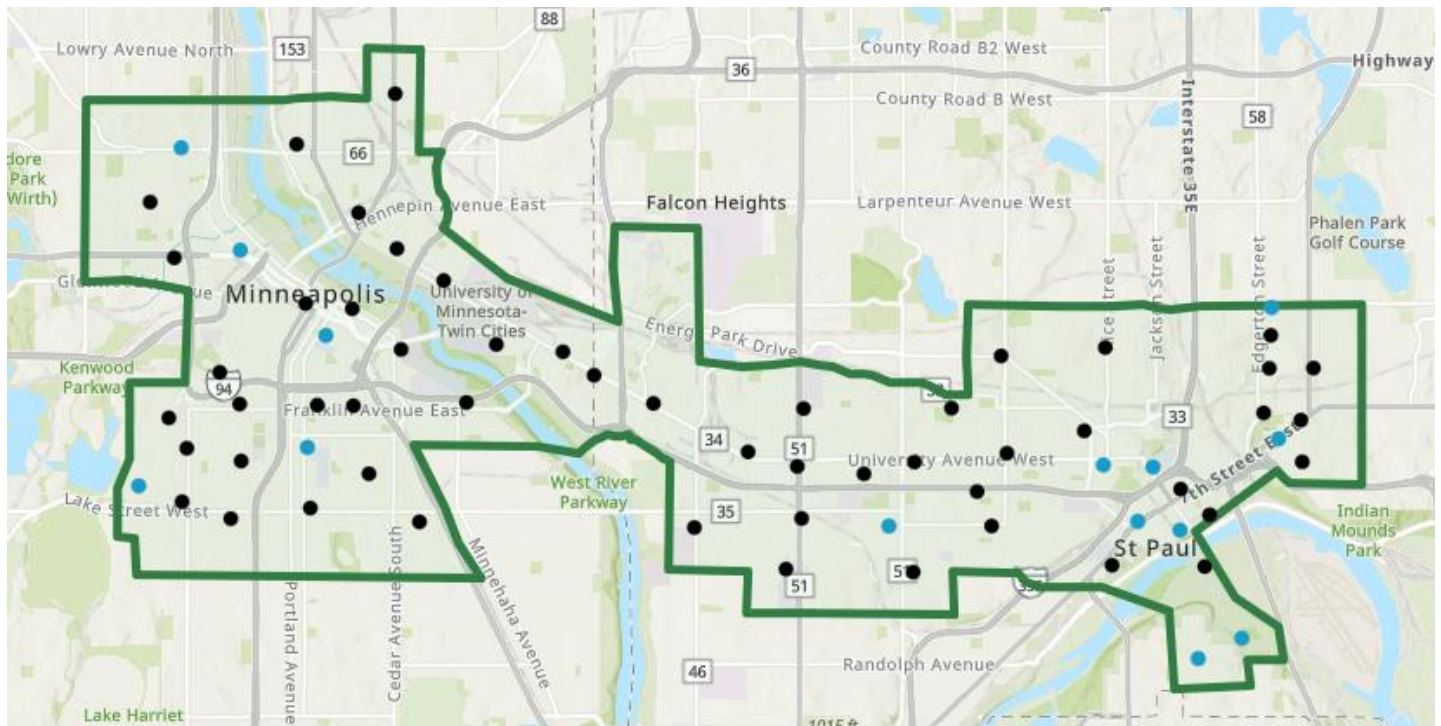


More on Evie in 2023

- 4,400 metric tons of CO2 equivalent reduced
- 43% usage by BIPOC/non-white users (up from 38% in 2022)
- 43% usage by very low-income users (up from 36% in 2022)
- \$14 million saved on transportation costs

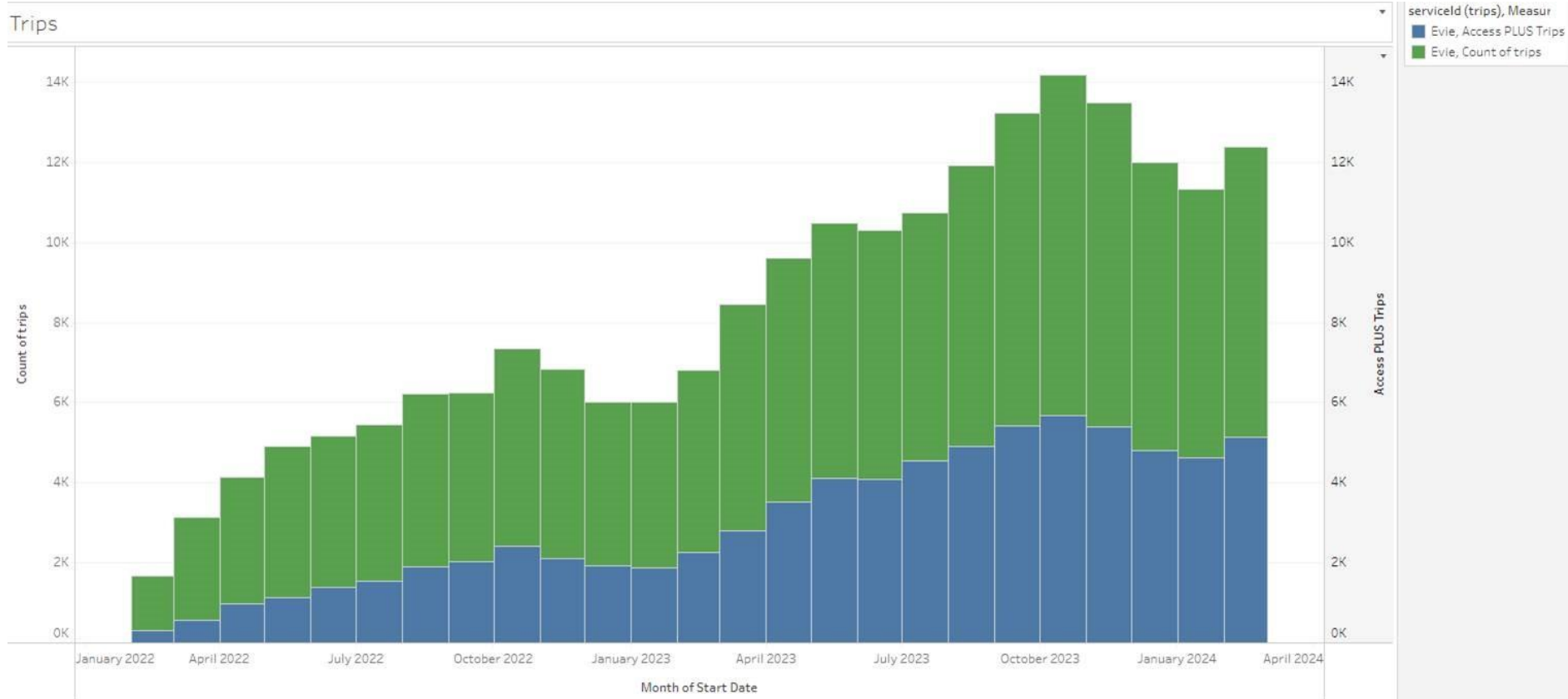


Existing Network



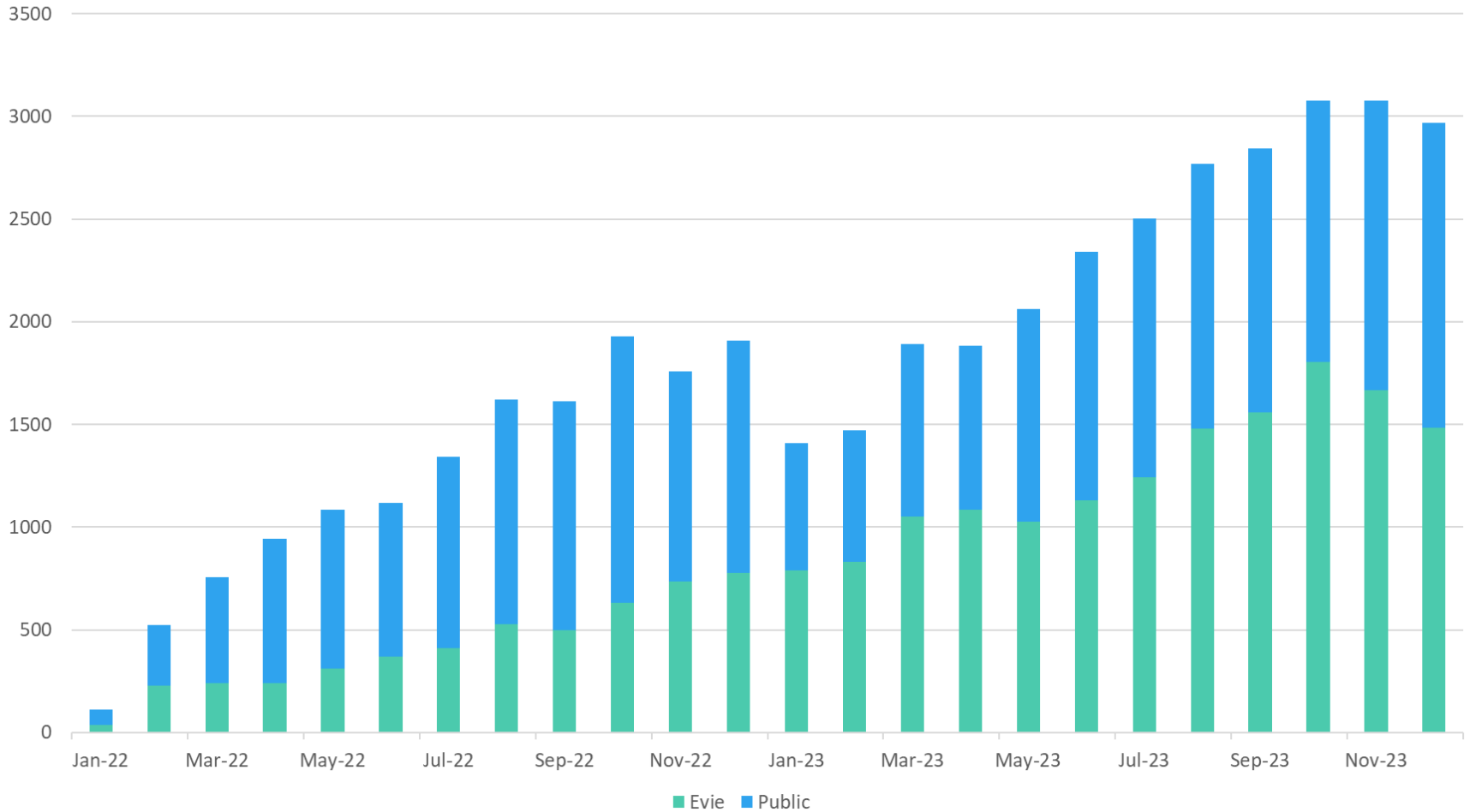


Evie Usage to Date





Charge Sessions by Month - Across System





Next for EV Spot/Envie Carshare

What's Next

- Funded expansion: Saint Paul's East Side
 - 5 community stations
 - 5 stations along planned Gold Line
 - Significant community engagement

Applying to EPA for:

- Triple the fleet
- Grow the home area
- Add 2-way Envie along high-frequency transit lines



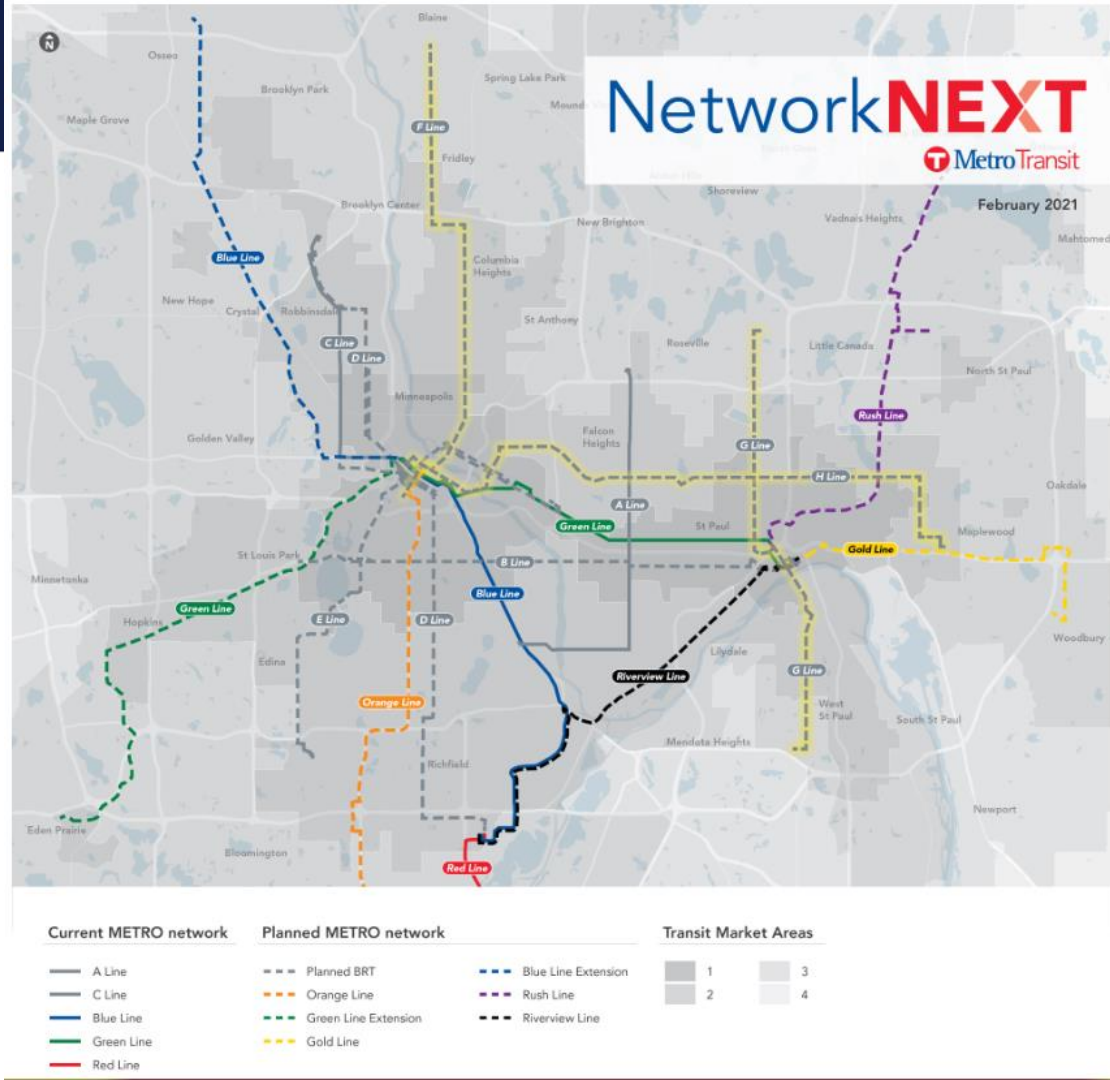
How can Saint Paul accommodate More People without inviting More Cars?

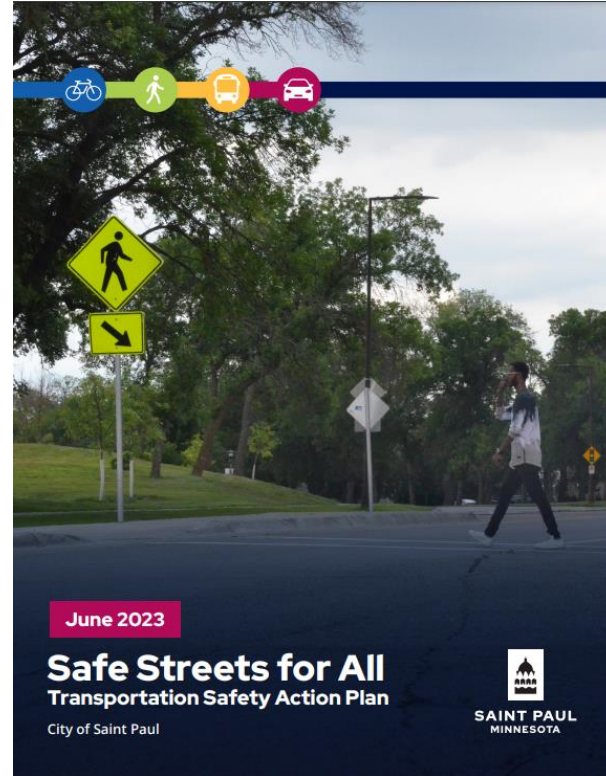
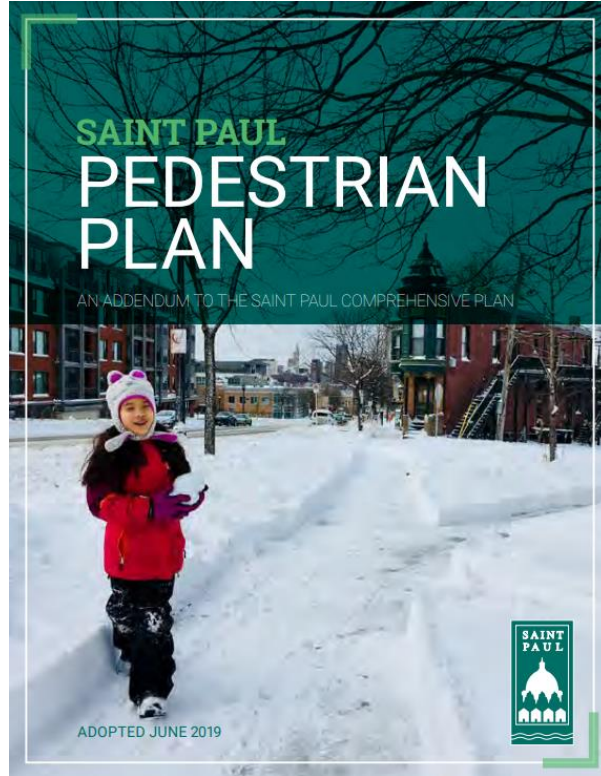
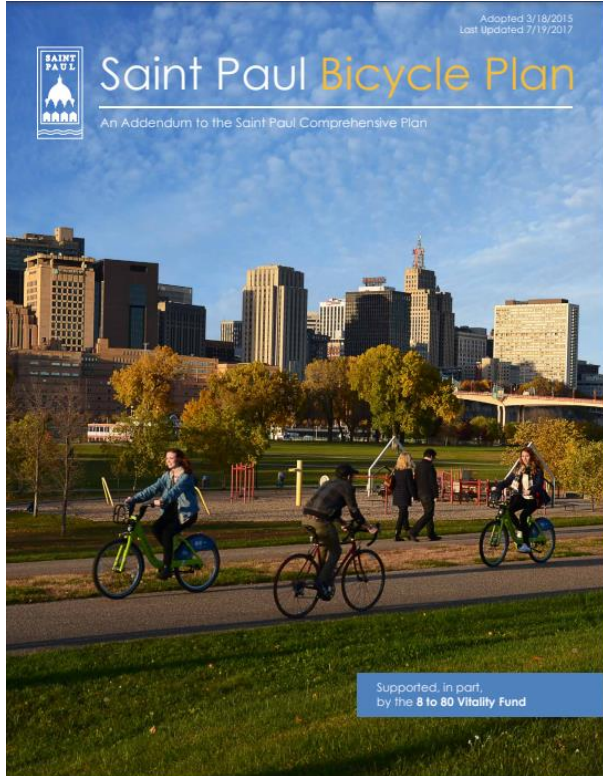




Transit

- Gold Line
- Purple Line
- Riverview
- Arterial BRT
 - B Line
 - G Line
 - E Line
 - H Line







Pedestrian Safety





Bikeways





Safe Routes to School





Right-sizing the Street





Shared Mobility – what's next in bikeshare?





Earn and Learn Construction/Green Careers

- 2 Earn and Learn Programs (ARPA funded)
- MNCEE Residential Insulation and HVAC
- Goodwill/Easter Seals Construction with Green focus





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Categories

Climate actions are divided into six categories



Sustainable Transportation



Energy Use in Buildings



Green Infrastructure and Jobs



Solid Waste



City Commitments and Rankings



City Buildings and Operations

Sustainable Transportation

In process (On time)	In process (On time)	Completed	In process (On time)	In process (On time)	In process (On time)
Bike Network Build-Out	Complete Sidewalk Network	Eliminate Parking Minimums	EV Spot Network	Evie Carsharing Program	Improve Transit Service

Energy Use in Buildings

Completed	Completed	In process (On time)	In process (On time)	In process (On time)	In process (On time)
Building Efficiency Advisor Program (BEAP)	District Energy Saint Paul	Electrically Heated Affordable Rental Pilot (EHARP)	Energy Benchmarking Ordinance	Energy Burden Tracking	Federal Weatherization
Planning (On time)	In process (On time)	In process (On time)	In process (On time)	In process (On time)	In process (On time)
Healthy Homes Pre-weatherization Program	Highland Bridge Sustainability Case Study	Home Energy Squad	Energy Cents Coalition Takes Action on Energy Poverty	Port Authority's PACE Financing for Energy Investments	Sustainable Building Ordinance

City Buildings and Operations

Completed	Completed	In process (On time)	In process (On time)	In process (On time)	In process (On time)
Alliant Field Green Infrastructure	CHS Field Green Infrastructure	City Buildings Powered by Geothermal Energy	City Buildings Powered by Solar Energy	Green Revolving Loan Fund	Decarbonizing Como Park Zoo & Conservatory
In process (On time)	In process (Late)	Planning (On time)	Planning (On time)	In process (Late)	
Energy Use in City Buildings	Greening the City Fleet	Mississippi River Learning Center: A Vibrant Destination for All	North End Community Center Rebuilds to Lead in Sustainability	Wakan Tipi Center	

Green Infrastructure and Jobs

In process (On time)	Planning (On time)	Completed	Completed	In process (On time)	Planning (Late)
Crosby Farm Regional Park Silvicultural Study	Daylight Lower Phalen Creek	Green Infrastructure on the Green Line	Highland Bridge Green Infrastructure	Increase Tree Canopy	Lowertown Flood Risk
In process (On time)					
Ramsey County Green/Construction Careers Committee					

Solid Waste

In process (On time)	Completed	In process (On time)	Completed	Completed	Planning (On time)
Green To-go Packaging Ordinance	Food Scraps (Organics) Collection	Waste Diversion	2021 Food Waste Reduction Program	2022 Backyard Composting 101 Program	2023 Food Waste Reduction Program

City Commitments and Rankings

In process (On time)	In process (On time)	Completed	In process (On time)
City Council Resolutions	Reporting and Certifications (CDP & ACEEE)	Climate Justice Advisory Board (CJAB)	Mayoral Commitments to Improve City's Future

Evie Carsharing Program

Progress

Not started

Planning

In process

Completed

On time

Evie's Inclusive Carsharing Program for Everyone

Evie Carshare is America's first 100% renewably-powered, municipally-owned all-electric carshare service. Getting around the Twin Cities is now greener and easier with over 150 all-electric Evie vehicles. Evie is designed to help make transportation easier for the community without giving off harmful emissions.

Meet Evie.



Carsharing has been shown to reduce the amount of driving that carshare member households do, by allowing them to own fewer cars. Carsharing is a great complement to transit, biking and walking, and a tool for reducing carbon emissions and other air pollution. Carsharing also improves mobility options, particularly for no-car and 1-car households.

There are a variety of carshare membership plans, including the Access Plus plan that is

Timeline

02/01/2022 → **Ongoing**

Responsible organizations

Public Works

Climate Plan Key

EV-1. EV-1 Electric vehicles in car-sharing service**EV-8. EV-8 Encourage electric car-sharing programs to help familiarize residents with EVs...**

Category

Sustainable Transportation

Contact persons



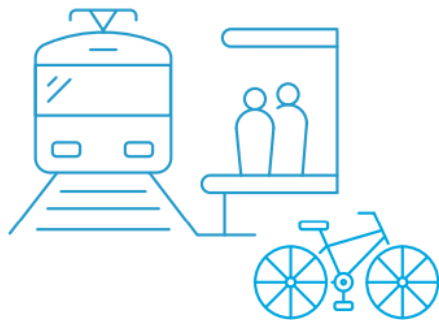
Erin Kayser
Electric Vehicle Program Coordinator
City of Saint Paul

[Contact information >](#)

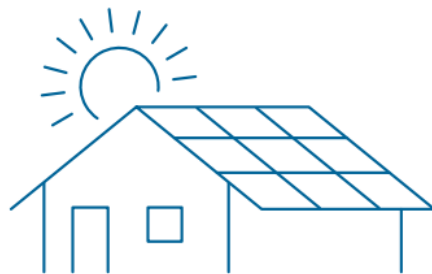


What actions
can you take
to reduce
greenhouse
gas emissions
in your life?
It all adds up!

1. LIVE CAR-FREE



2. TAKE FEWER FLIGHTS



**3. PURCHASE OR INSTALL
GREEN ENERGY**



**4. REDUCE EFFECTS
OF DRIVING**



**5. EAT A
PLANT-BASED
DIET**



**6. HOME ENERGY
EFFICIENCY**



**7. REDUCE
FOOD
WASTE**



**8. REDUCE
WASTE**



**9. EAT LOCAL
& IN SEASON**

Check out Saint Paul's Climate Dashboard: **climateaction.stpaul.gov**



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What's Next

- EPA Grant Applications
- Update the Climate Action and Resilience Plan
- Update the Sustainable Building Ordinance
- EV Spot/Envie East Side Expansion
- City Buildings Decarbonization Plan
- Healthy Homes Saint Paul RFP
- Decarbonize Downtown
- New Models for low-income residential weatherization and decarbonization

Questions?



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Thank you!



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