



SFMTA

# Climate Roadmap for a Healthier San Francisco

SFMTA Board of Directors

March 21, 2023

# Objective and Outline

Staff recommend the SFMTA Board of Directors adopt the Climate Roadmap for a Healthier San Francisco.

1. Vision & Goals
2. Process
3. Strategies & Actions
4. Evaluation
5. Funding Needs
6. Recommendations



An aerial photograph of a city intersection. A red and white bus is stopped at a traffic light. Several cyclists are riding across the intersection. A large group of pedestrians is crossing the street. A sign for 'Care' and 'ZSFG Care.org' is visible on the left. The bus has an advertisement for 'SEE WARHOL MEET ANDY' on its side. The scene is vibrant and shows a mix of transportation modes.

**Vision: A city of diverse and vibrant neighborhoods seamlessly connected by safe, reliable and affordable transportation for all.**

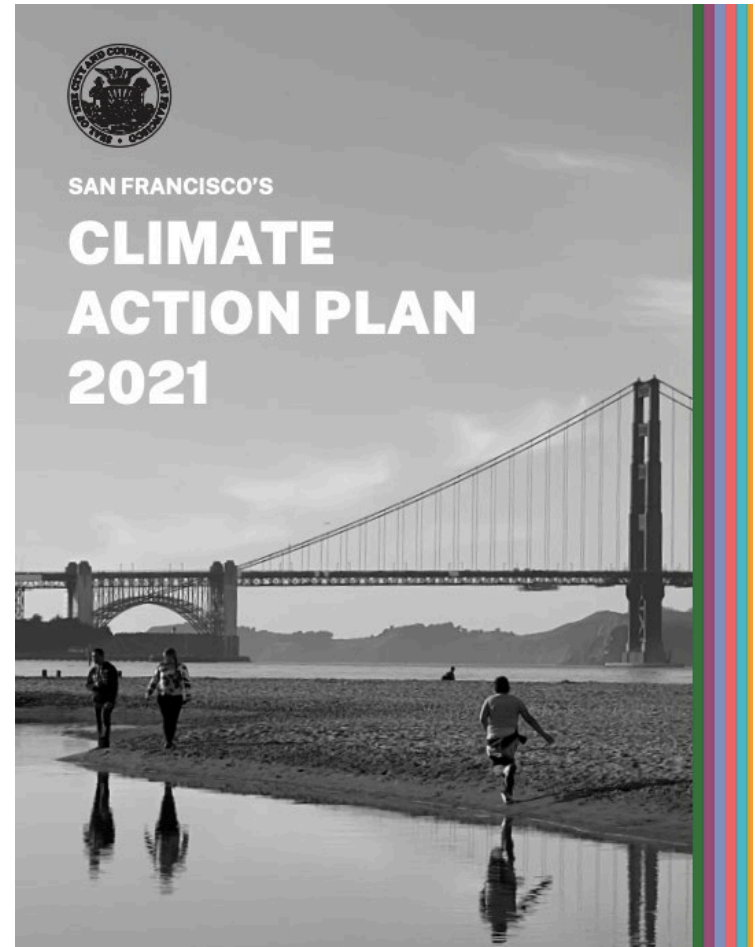
**This vision is intimately linked to the city's climate and equity goals.**

# Citywide Climate Action: Policy and Plans

**2019** The San Francisco Board of Supervisors declare a **climate emergency**.

**2021** Mayor Breed and the San Francisco Department of the Environment release the San Francisco **Climate Action Plan 2021**.

**2023** In response, the SFMTA develops the **Climate Roadmap** with priority actions to achieve citywide climate and mobility targets.



# Citywide Climate Action: Transportation Goals

**Net-zero** greenhouse gas emissions by 2040

**80% of trips are low-carbon trips by 2030**

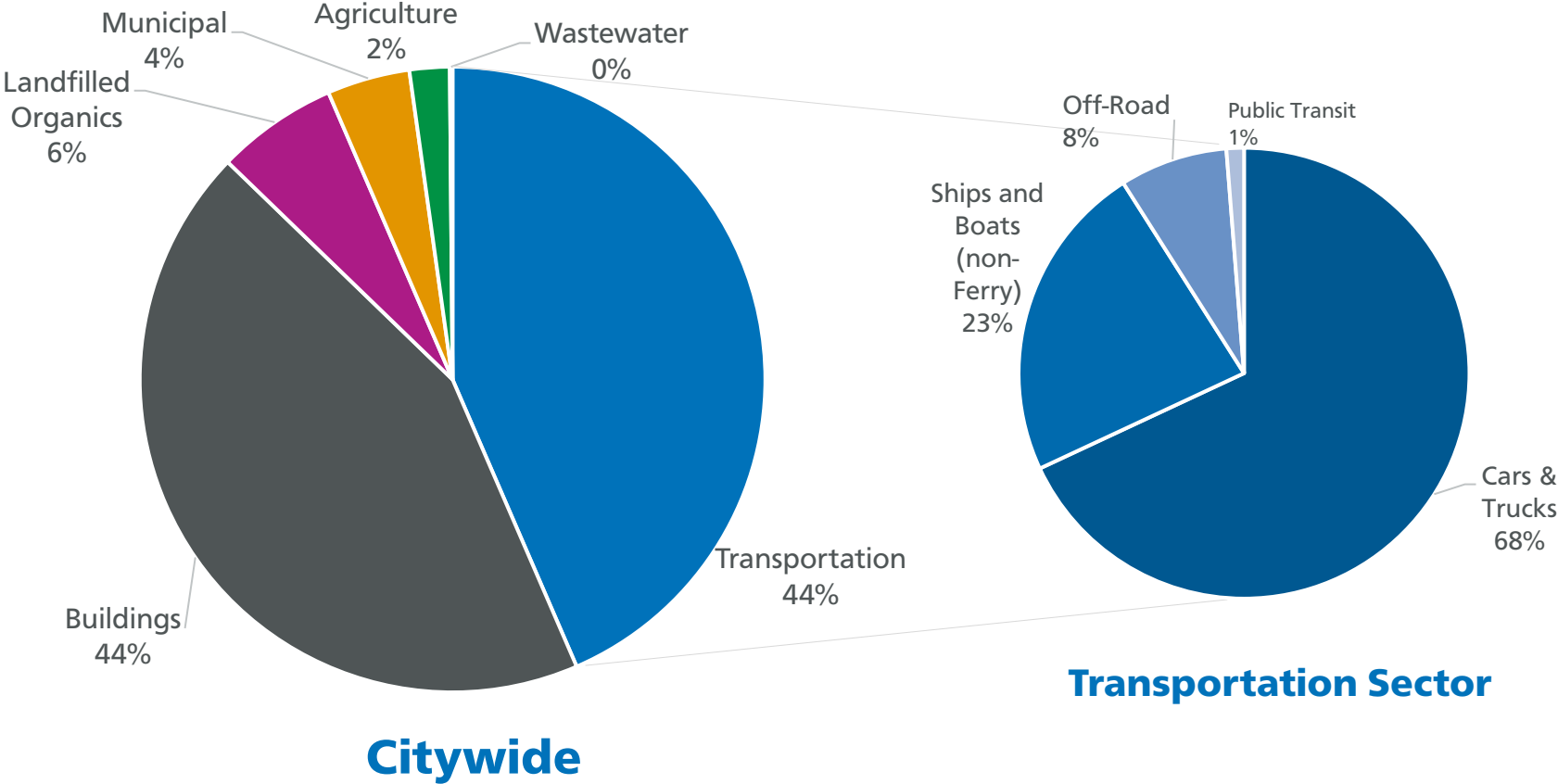
Transit, walking, bicycling, trips in vehicles with 3+ people and electric vehicles

**25% of registrations are electric vehicles (EVs) by 2030 and 100% by 2040**



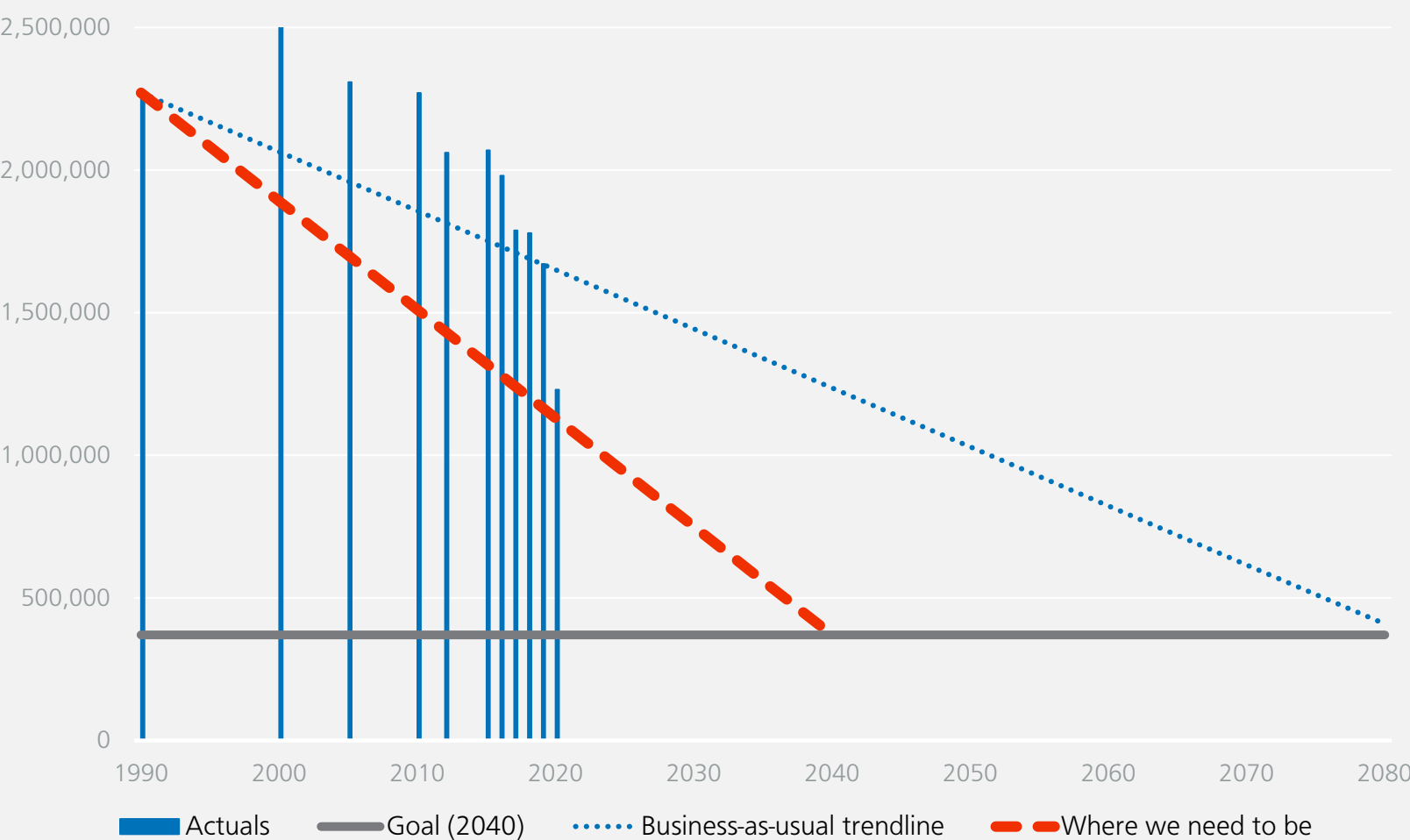
# Transportation is one of the largest generators of greenhouse gas emissions in San Francisco

San Francisco Greenhouse Gas Emissions, 2020

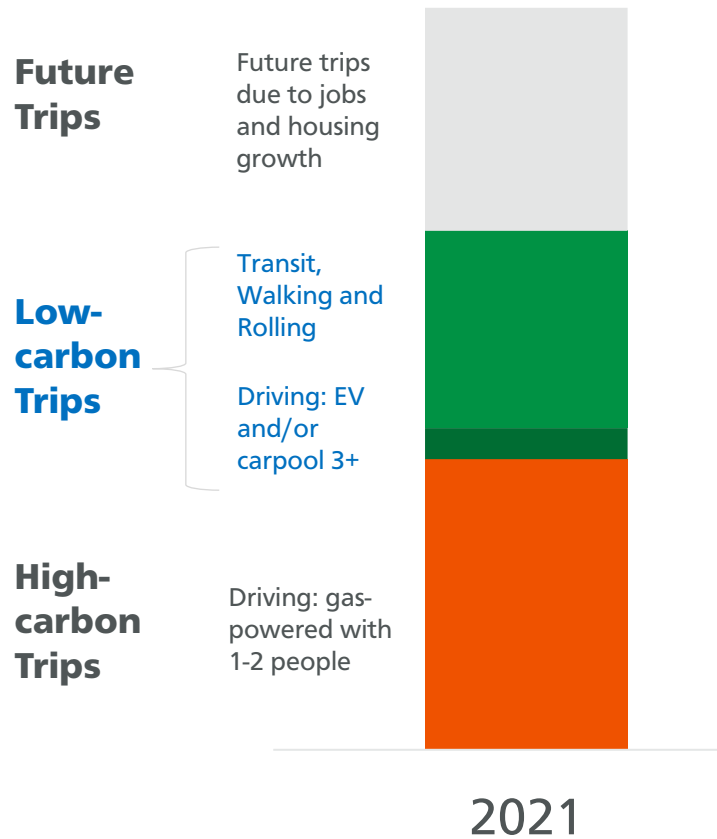


# Reductions in the sector's greenhouse gas emissions are not on track to meet 2040

San Francisco GHG Emissions from Ground Transportation, 1990-2020 mtCO<sub>2</sub>e, excludes maritime and off-road emissions



# Most trips are made by driving gas-powered vehicles with only one or two people



Since the pandemic, trips on transit are down



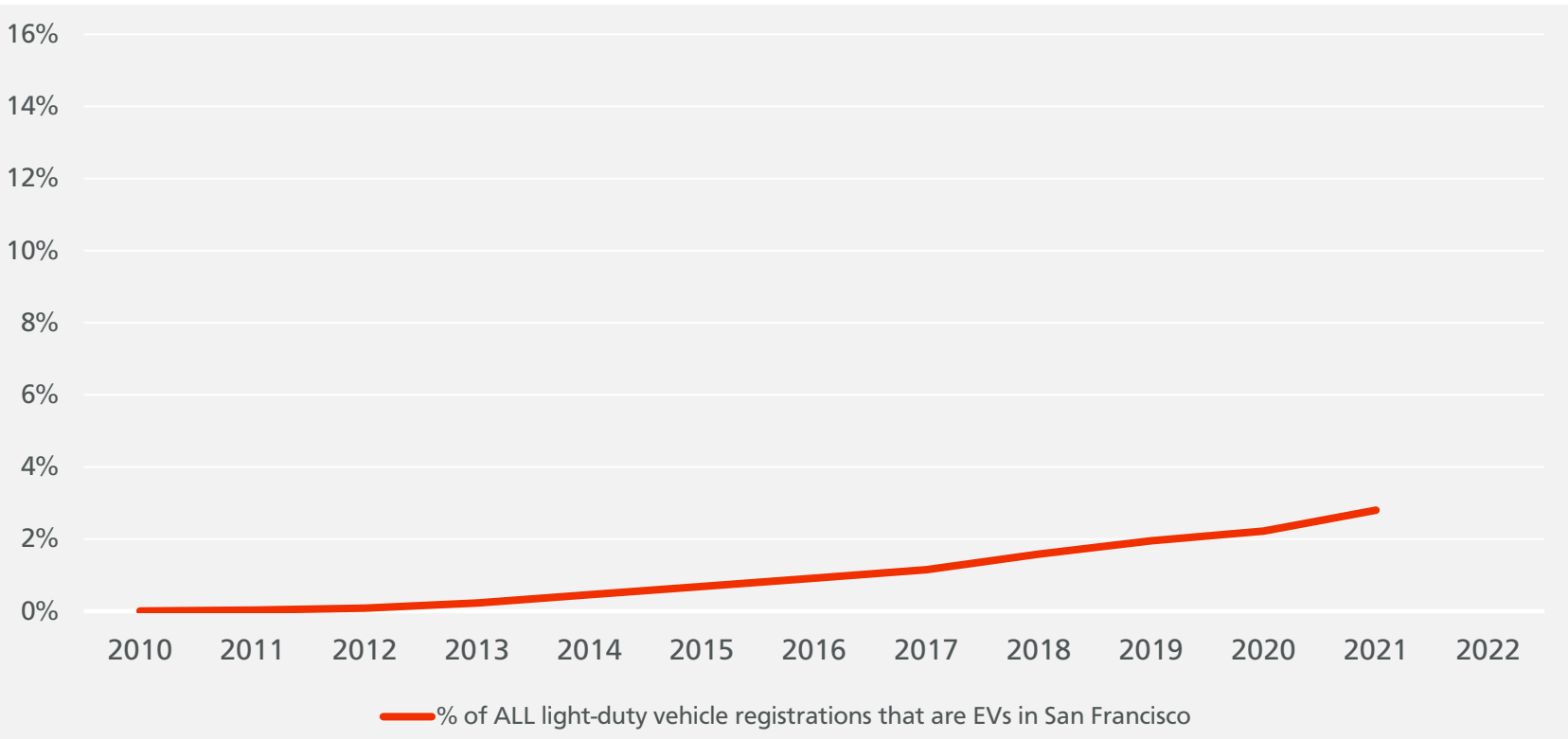
Drive alone trips are up.





# Electric vehicle registrations are still low but have risen rapidly in the last two years

Percent of All Light-duty Vehicle Registrations of EVs in San Francisco, 2010-2022



Source: California Energy Commission (2022). Vehicle Population in California. Data as of June 30, 2022.

**The primary way we travel directly damages Bay Area air quality and contributes to climate change.**



And while many people have a cultural preference for cars...



...to protect our air and help our streets, when we add more housing, we can't simply add more cars



And we need to prioritize those with different abilities and needs for cars



# How do we encourage this shift to low-carbon modes?



# And in what other ways does this make our city better?



## Racial Equity

Repair past harms rather than perpetuating them



## Air Quality

Reduce tailpipe pollutants



## Public Health

Increased physical activity and improved mental health



## Safety

Less driving means fewer collisions, injuries and deaths



## Economic Vitality

Supports commercial corridors and improves personal savings



## Travel Experience

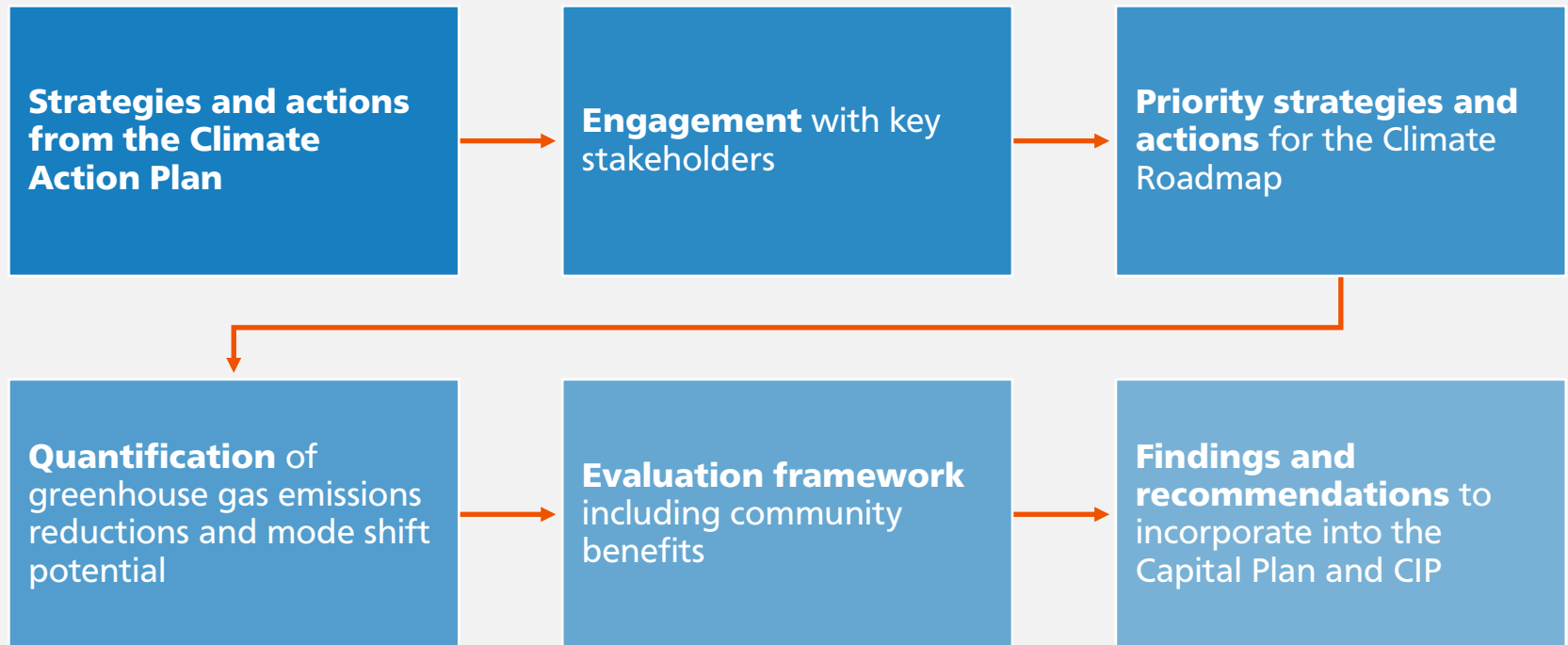
Well-supported transit is safe, sociable, and fun

# The SFMTA is a climate leader but must do more





# Development Process



# Climate Roadmap Strategies

+ **Equity Practices** for each

Strategy 1

**Build a fast and reliable transit system**

Strategy 2

**Create a complete and connected active transportation network**

Strategy 3

**Expand programs to communities that shift trips to transit, walking and bicycling**

Strategy 4

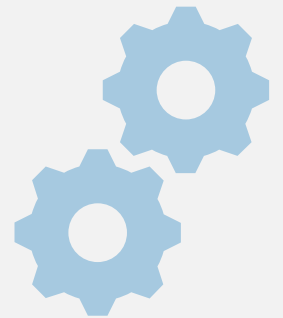
**Manage parking resources more efficiently**

Strategy 5

**Accelerate adoption of electric vehicles**

Strategy 6

**Conduct impactful community engagement**



# Climate Roadmap Strategy: Transportation Demand Management

Expand programs to communities that shift trips to transit, walking and biking.

## Actions

**Increase engagement in Commute Benefits Ordinance programs**

**Increase share of employers offering commute subsidies**

## Cost / Benefits

**Medium Cost**

**Low Community Benefits**



Potential Annual Tons of  $\text{mtCO}_2\text{e}$  Reduced by 2050

Transportation Demand Management



# Climate Roadmap Strategy: Active Transportation

Create a complete and connected network for all shifting trips from cars to walking, biking, and other active transportation modes.

## Actions

**Expanded bicycle parking**

**E-bike subsidies**

**Mobility hubs**

**Bicycle networks**

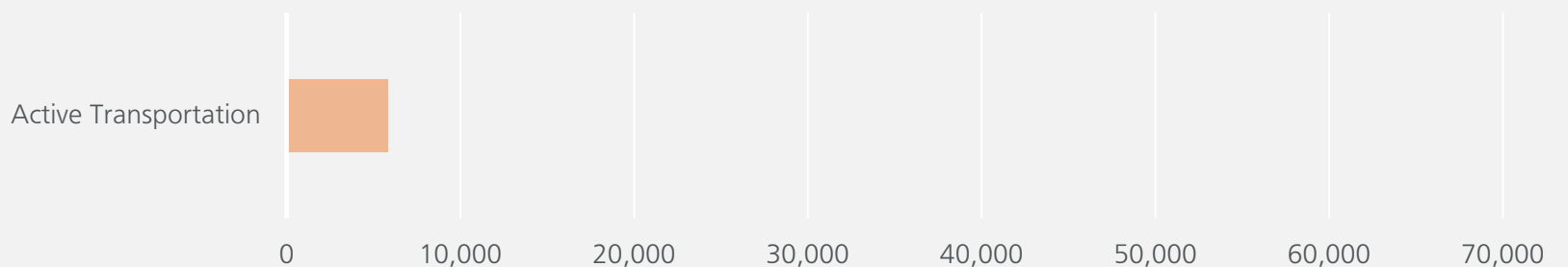
## Cost / Benefits

**Medium Cost**

**Medium Community Benefits**



Potential Annual Tons of mtCO<sub>2</sub>e Reduced by 2050



# Climate Roadmap Strategy: Community Engagement

Conduct impactful community engagement and implement community-based transportation plans to ensure climate actions are addressing residents' needs

Actions

**Community  
transportation  
planning**

Cost / Benefits

**Low Cost**

**High Community  
Benefits**



Potential Annual Tons of mtCO<sub>2</sub>e Reduced by 2050

Community Engagement



Approx **12,000+** mtCO<sub>2</sub>e/year

# Climate Roadmap Strategy: Electrification

Accelerate adoption of zero-emissions vehicles and other electric mobility options.

Actions

**Expand EV charging stations**

Cost / Benefits

**Low Cost**

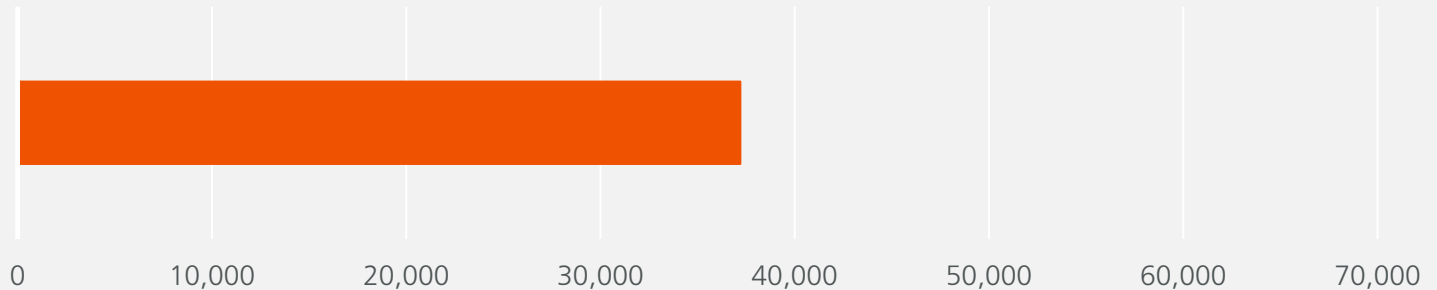
**Medium Community Benefits**



Potential Annual Tons of mtCO<sub>2</sub>e Reduced by 2050

Approx **37,000+** mtCO<sub>2</sub>e/year

Electrification



# Climate Roadmap Strategy: Transit

Build a fast and reliable transit system that will be everyone's preferred way to get around.

## Actions

**Major capital improvements**

**Muni Forward improvements**

**Improved transfers**

## Cost / Benefits

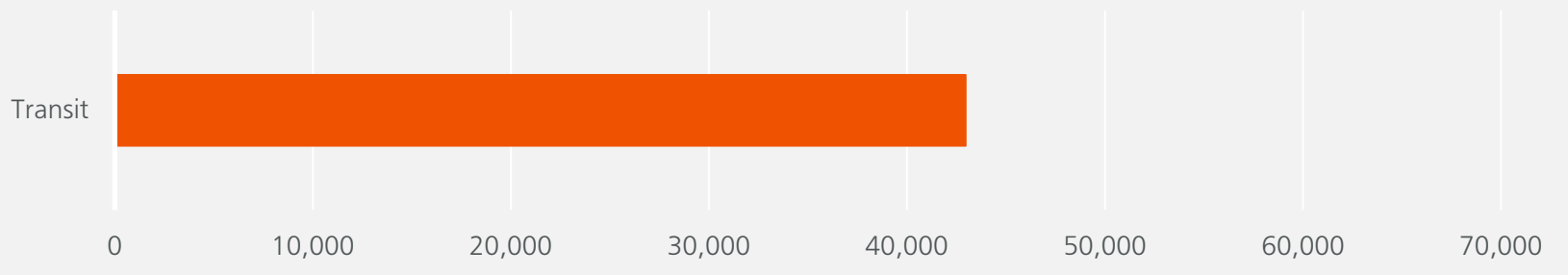
**High Cost**

**High Community Benefits**



Potential Annual Tons of mtCO<sub>2</sub>e Reduced by 2050

Approx **40,000+** mtCO<sub>2</sub>e/year



# Climate Roadmap Strategy: Parking Management

Manage parking resources more efficiently over time to charge the right price for every parking space.

## Actions

**Expand paid parking on Sundays and evenings**

**Gradually charge the right price for every space**

**Increase residential parking permit fees**

## Cost / Benefits

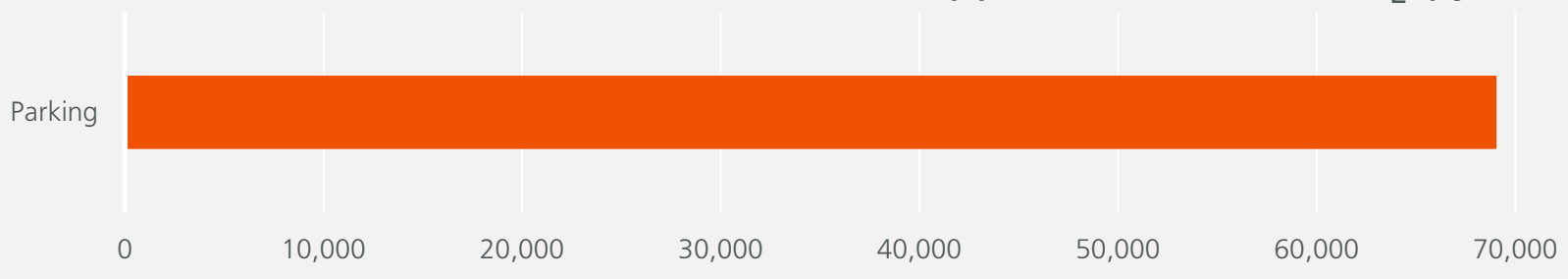
**Generates Revenue**

**High Community Benefits**



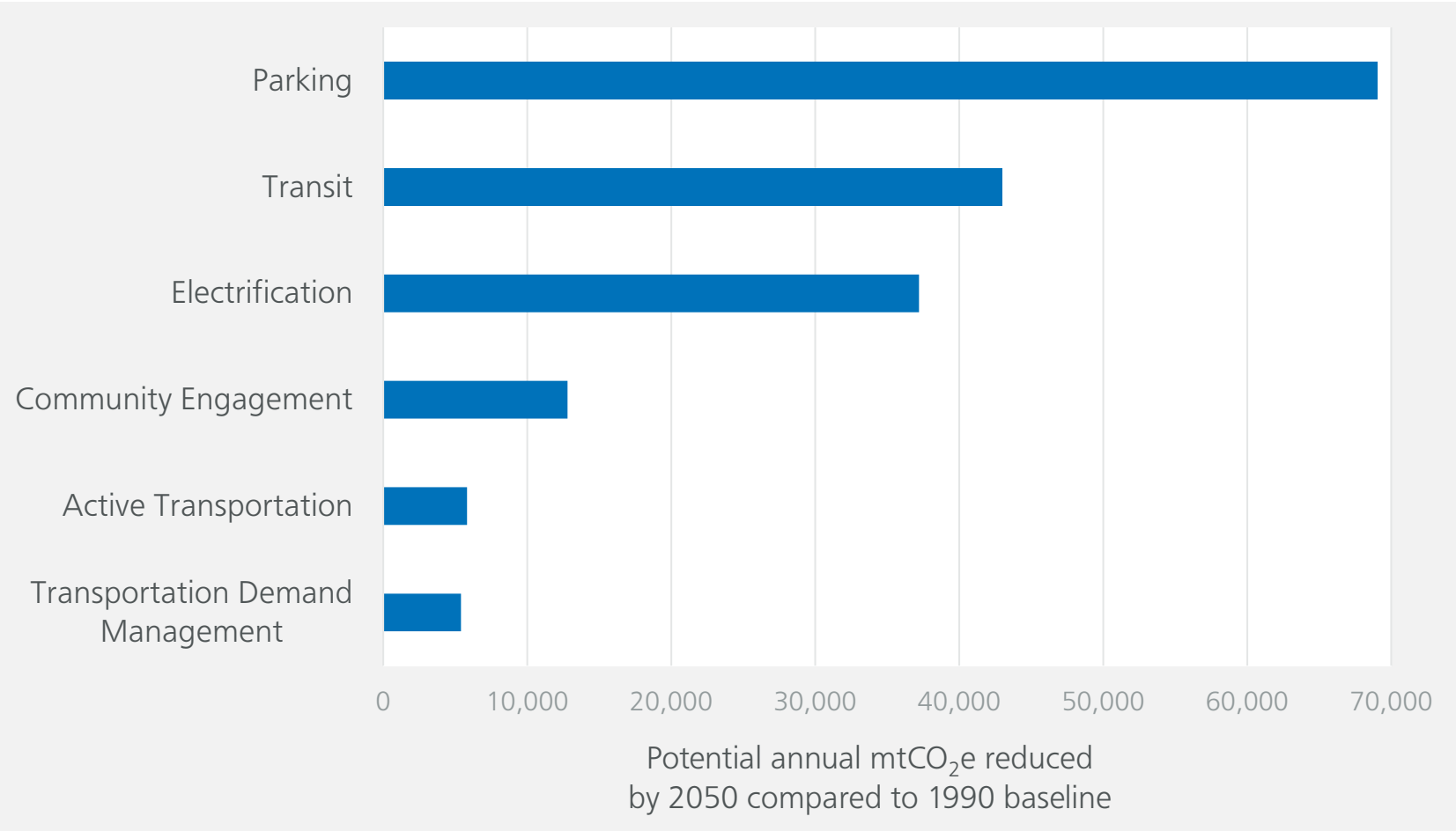
Potential Annual Tons of mtCO<sub>2</sub>e Reduced by 2050

Approx **69,000+** mtCO<sub>2</sub>e/year



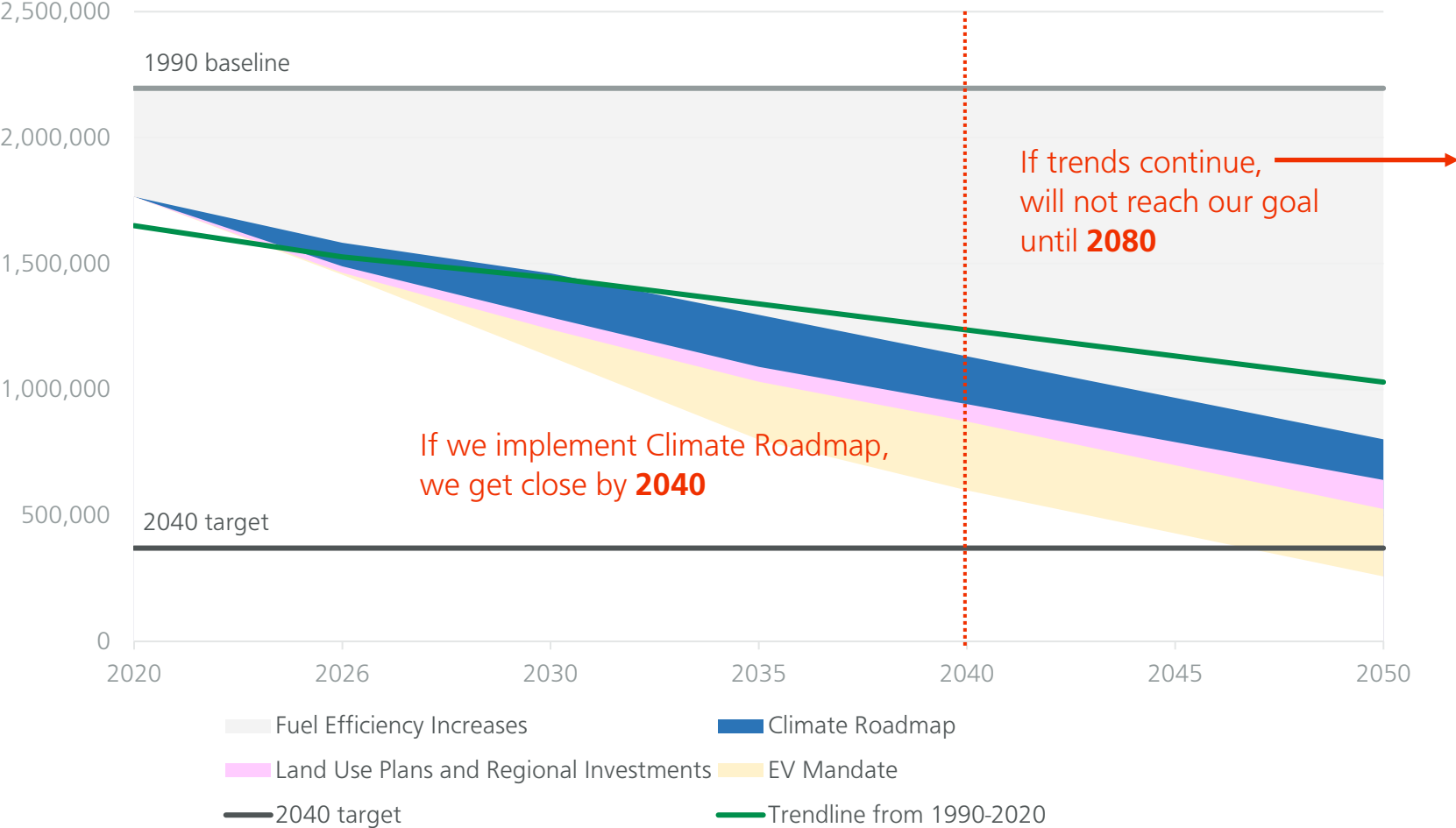


# Parking Management and Transit are powerful levers



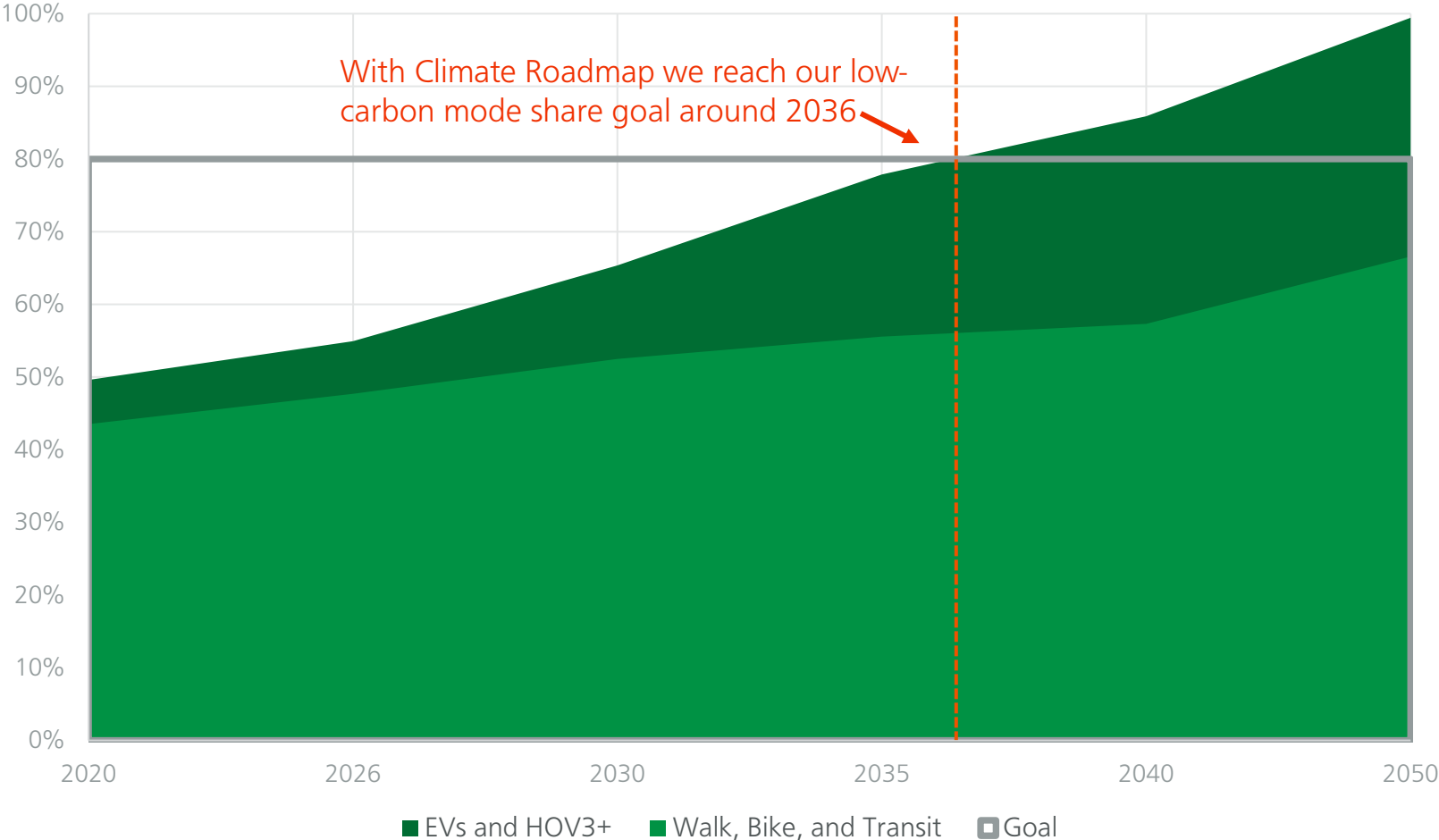
# Climate Roadmap gets us close to our emissions goals by 2040

Annual mtCO<sub>2</sub>e Emissions Compared to 1990 Baseline with Climate Roadmap



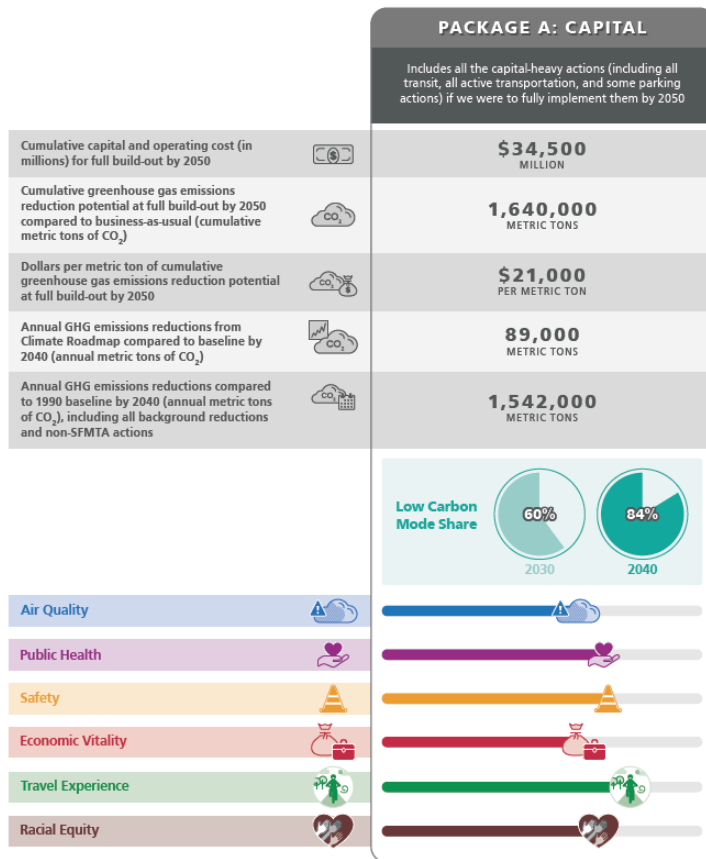
# Climate Roadmap gets us close to our low-carbon mode share goal by 2030

Annual Low-carbon Mode Share with Climate Roadmap

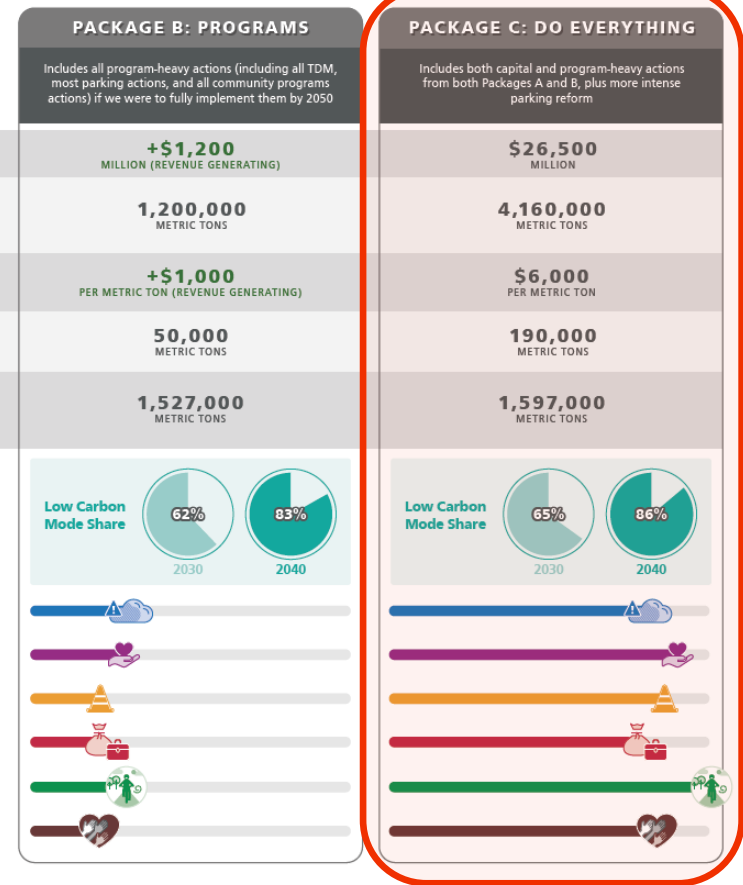


# Our evaluation indicates: we must do a blend of capital-intensive projects as well as using policy levers = "Do Everything".

## Package Evaluation Framework

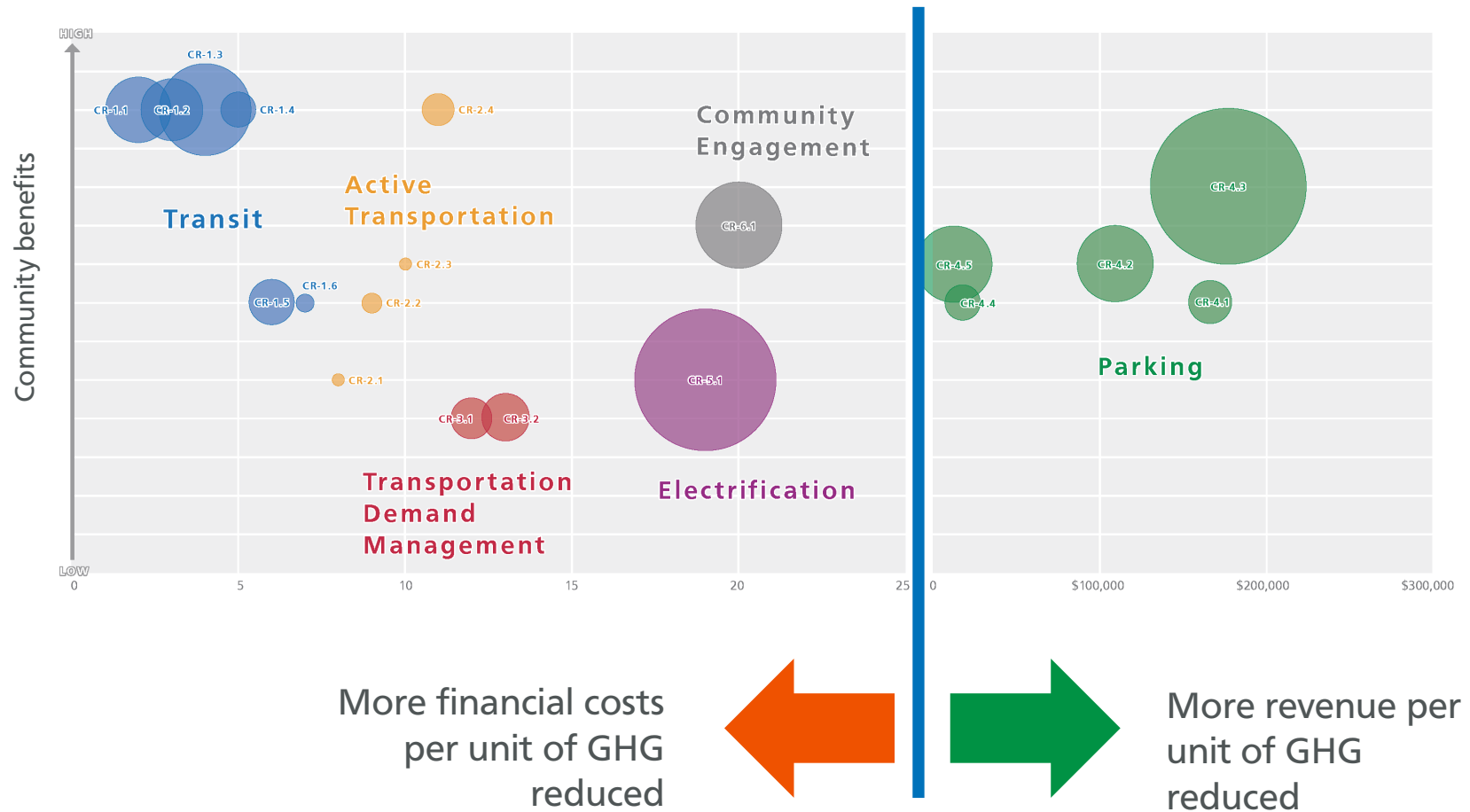


## Package Evaluation Framework



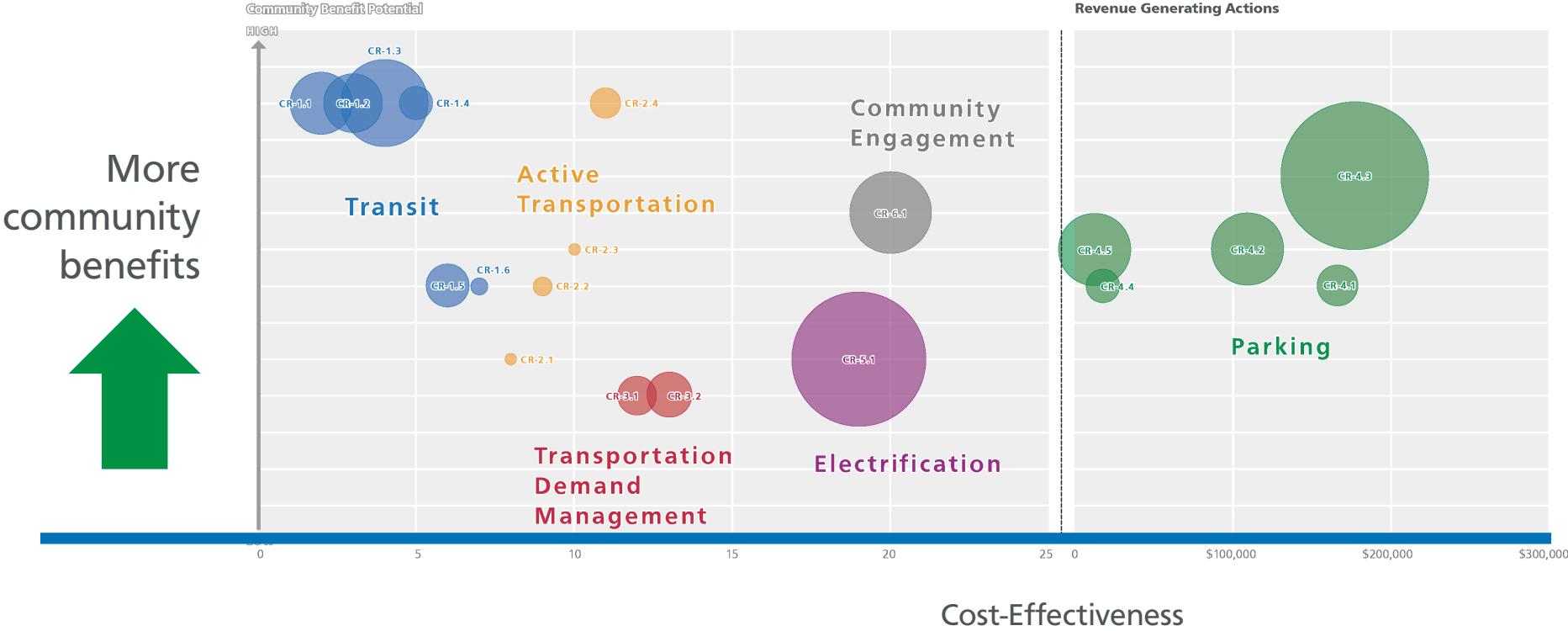
# Some actions provide revenue, others cost money

Annual Cost-effectiveness Tier and Community Benefits Potential

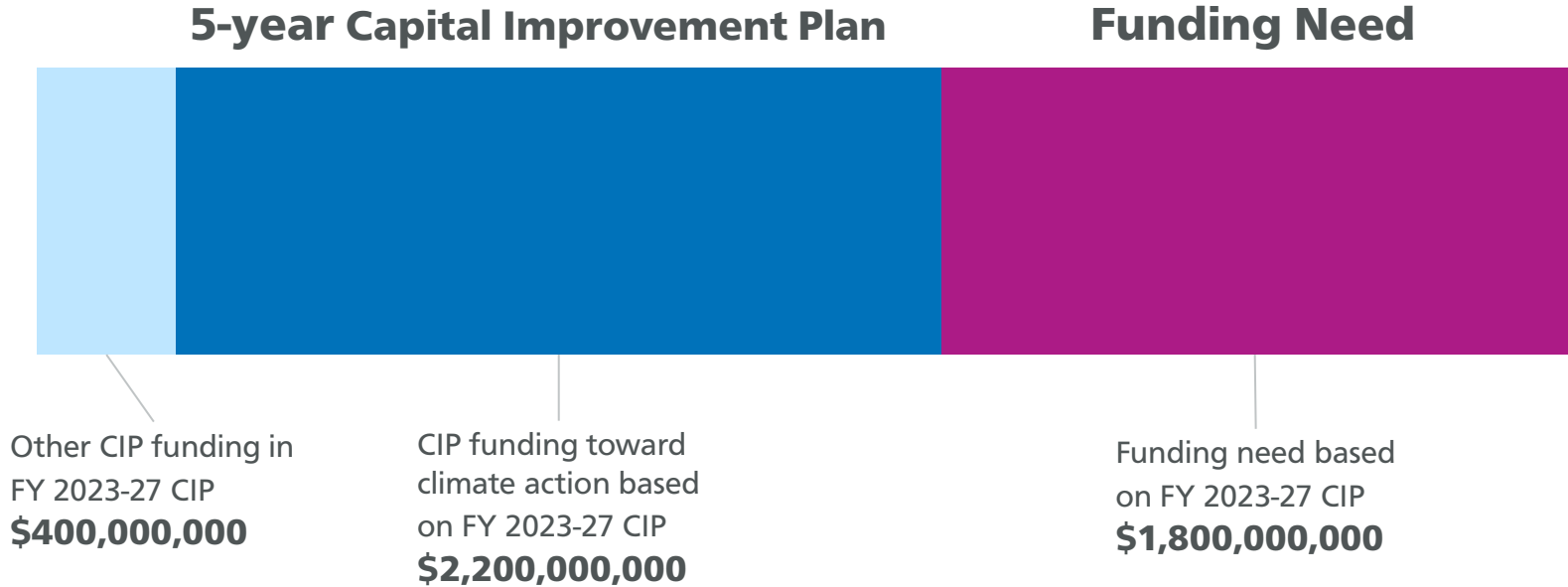


# Actions provide community benefits beyond reducing GHG emissions

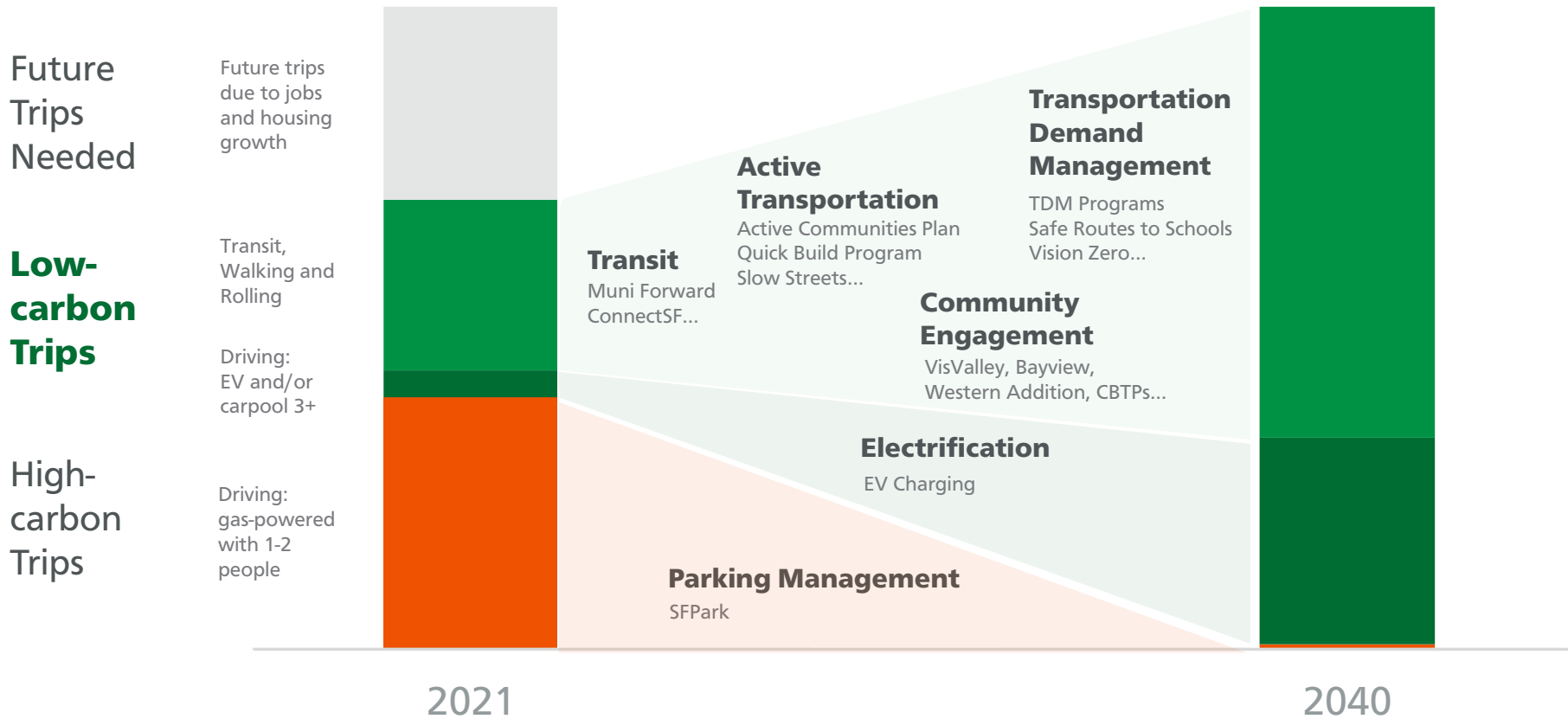
Annual Cost-effectiveness Tier and Community Benefits Potential



# Funding the Climate Roadmap: Additional ~\$1.8 Billion Every 5 Years Beyond Current Funding



# Getting to Net-zero Greenhouse Gas Emissions from Transportation





# Climate Roadmap Recommendation

Staff recommend the SFMTA Board of Directors adopt the Climate Roadmap for a Healthier San Francisco, which recommends:


## **Fund Climate Roadmap**

in the upcoming CIP cycles

## **Increase priority actions**

- Parking reform
- Expansion of EV charging network





# Thank You & Questions