



Muni Service & Fleet Electrification Update

SFMTA Citizens' Advisory Council
January 4, 2024



Focusing on Quality

for management of the system and deployment of resources leading to gains in performance and customer feedback

SFMTA Focus: Fast, Frequent, Reliable, Safe, Clean



Improved speed, reliability



Responding to travel patterns



Reduced major delays



New customer information system



Cleaner vehicles, stations, transit shelters

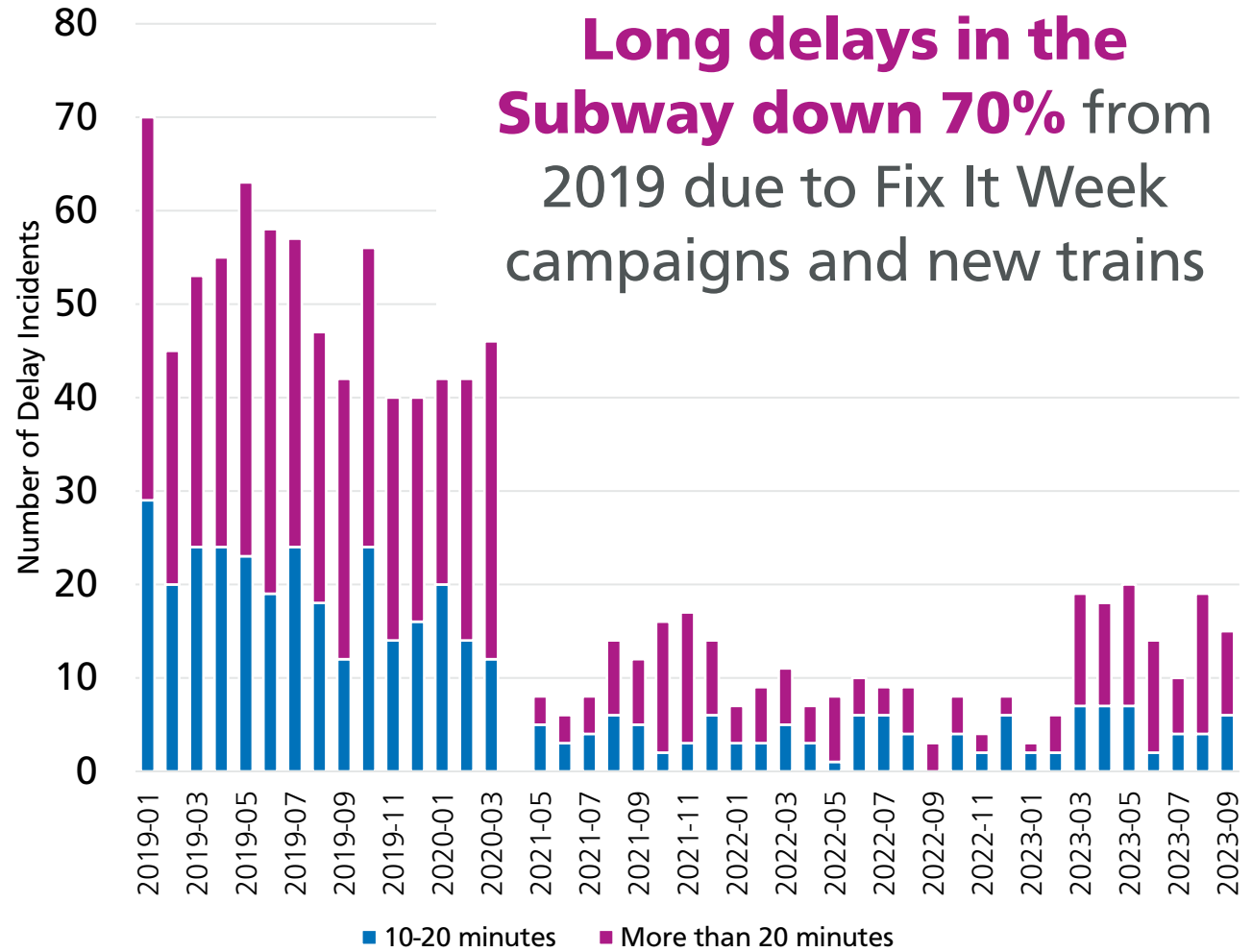


More security personnel

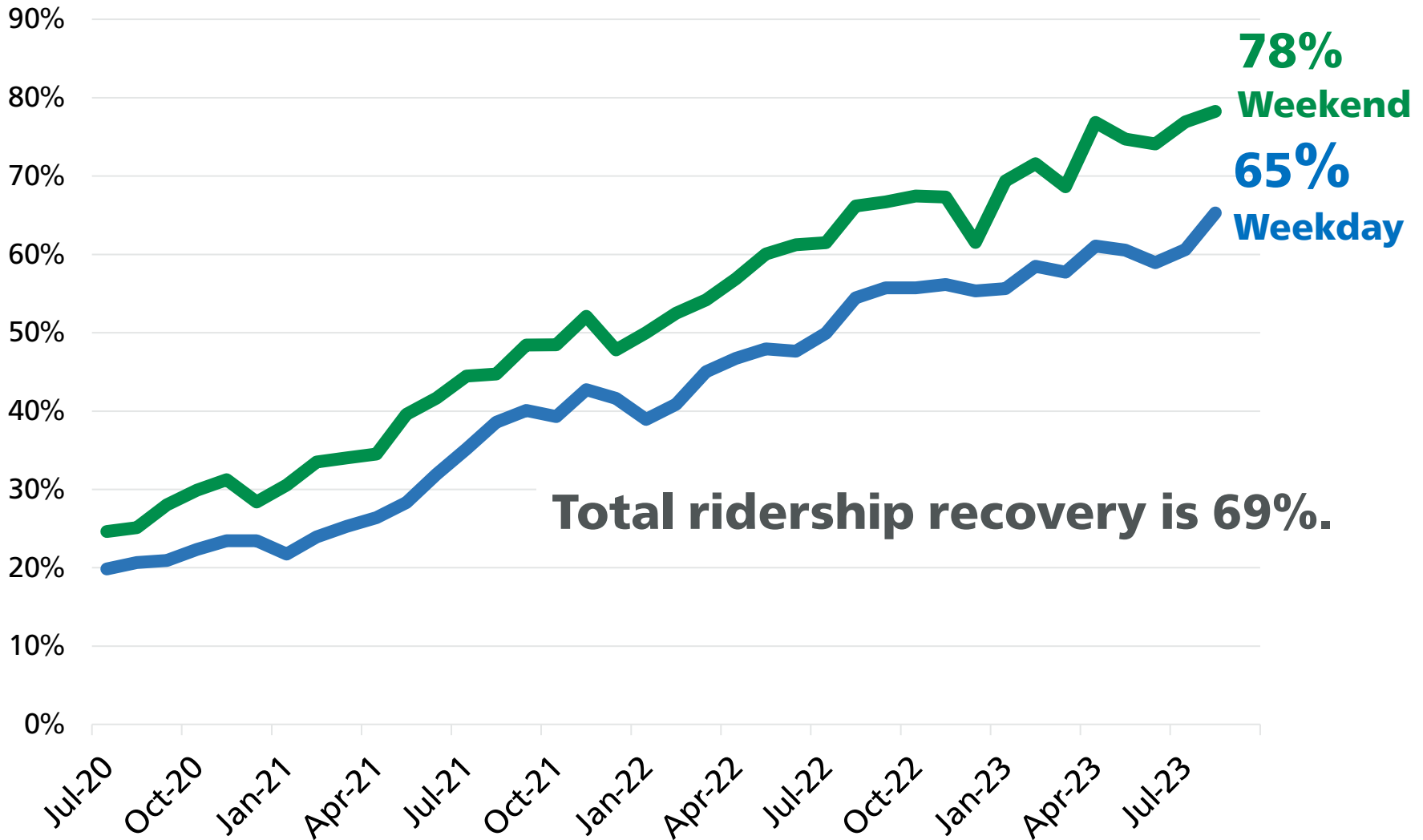
Focusing on Quality

5 Factors of Quality:

- Fast
- Frequent
- Reliable
- Safe
- Clean

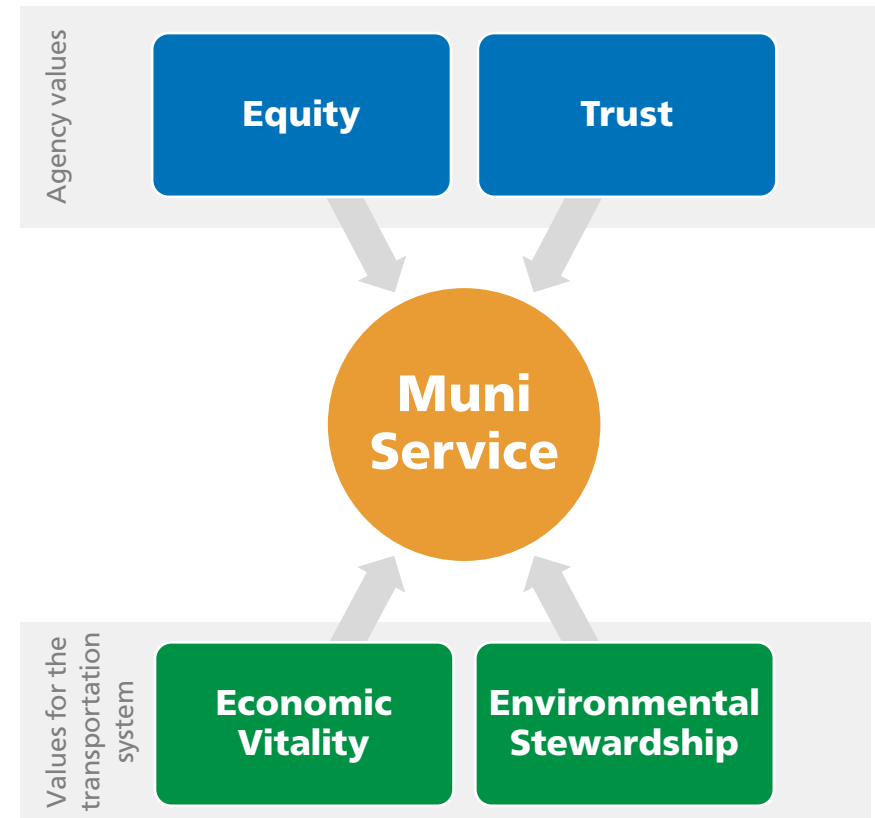


Ridership continues to climb, with September the highest in 4-years.



Muni Service Decision-Making Criteria

- Resource neutral changes
- Neighborhoods identified by the Muni Service Equity Strategy
- Ridership demand (crowding) and frequency
- Minimum policy frequencies
- Access for people with disabilities and seniors
- Support economic recovery



Muni service criteria based on agency values

Bi-annual Service Evaluation

- As service changes are implemented, staff reviews data and community feedback
- System performance will be identified and documented based on existing service delivery metrics (on-time performance, crowding, etc.)
- Adjustments prioritized by Muni Service Equity Strategy with involvement from Equity Working Group and other stakeholders.
- Changes implemented 2-3 times per year informed by staffing and budget considerations



August 19 Service Changes

New Service

- 28R 19th Ave Rapid – Restored weekdays 7 a.m.-7 p.m., every 12 minutes, new terminal at Daly City BART
- 31 Balboa – Extension to Caltrain weekdays
- School Trippers restored

Additional service

- At school times: 14R Mission Rapid short, 29 Sunset, 48 Quintara-24th Street
- Increased frequency during weekend midday: 22 Fillmore

Reduced Service

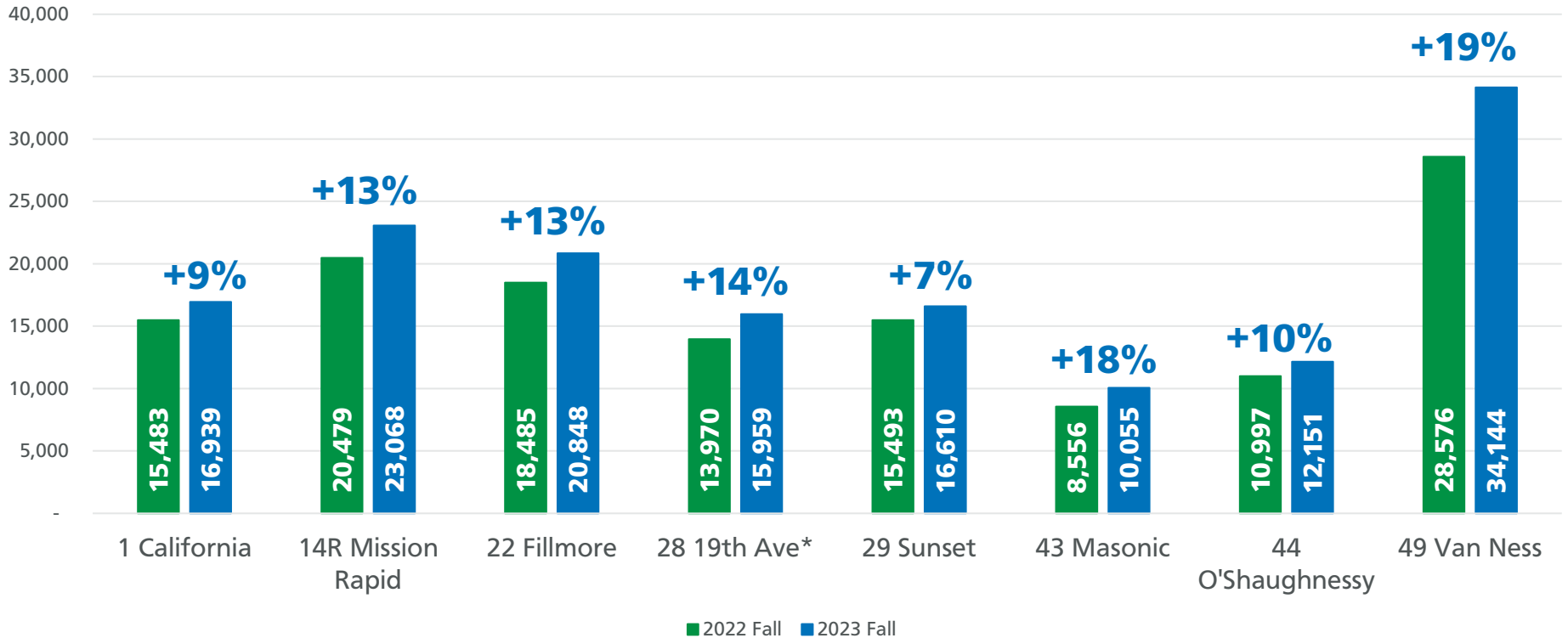
- 5 Fulton during weekend midday
- 28 19th Avenue, now every 12 minutes



Fall Ridership Changes

Most crowded routes with the highest ridership showing growth compared to last year

Fall 2022 v. Fall 2023
Total Daily Ons



*"28 19th Ave" ridership includes both local (12,351) and 28R 19th Avenue Rapid (3,608) ons

Weekday – Most Crowded Routes

% of trips with crowding

Top lines with over 10% of trips crowded in a single hour.

“Crowded Trip” means at least 5% of stops had load that was at or over the crowding capacity

| Route | Month of Service .. | 0600 AM Peak (6am-9am) | | | 0900 Mid-Day (9am-2pm) | | | | | 1400 School (2pm-4pm) | | 1600 PM Peak (4pm-7pm) | | |
|---------------------|---------------------|------------------------|-----|-----|------------------------|----|----|----|----|-----------------------|-----|------------------------|-----|----|
| | | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 24 Divisadero | August 2023 | 2% | 24% | 4% | 1% | 0% | 0% | 0% | 1% | 5% | 19% | 6% | 2% | 0% |
| | September 2023 | 1% | 21% | 2% | 1% | 0% | 0% | 0% | 0% | 5% | 23% | 5% | 5% | 0% |
| 28 19th Avenue | August 2023 | 0% | 17% | 17% | 3% | 2% | 1% | 1% | 8% | 18% | 31% | 3% | 10% | 1% |
| | September 2023 | 0% | 8% | 12% | 1% | 1% | 1% | 1% | 4% | 13% | 26% | 13% | 4% | 1% |
| 29 Sunset | August 2023 | 1% | 37% | 20% | 1% | 2% | 1% | 1% | 6% | 26% | 34% | 16% | 9% | 0% |
| | September 2023 | 0% | 24% | 10% | 1% | 1% | 4% | 1% | 5% | 26% | 33% | 14% | 5% | 1% |
| 38R Geary Rapid | August 2023 | 0% | 6% | 7% | 0% | 0% | 0% | 1% | 0% | 2% | 8% | 4% | 6% | 1% |
| | September 2023 | 0% | 11% | 7% | 0% | 0% | 0% | 0% | 0% | 2% | 11% | 9% | 8% | 1% |
| 44 O'Shaughnessy | August 2023 | 6% | 45% | 5% | 1% | 0% | 0% | 0% | 3% | 6% | 43% | 17% | 1% | 0% |
| | September 2023 | 6% | 29% | 7% | 1% | 0% | 0% | 0% | 2% | 6% | 27% | 17% | 3% | 0% |
| 48 Quintara/24th .. | August 2023 | 2% | 25% | 20% | 0% | 0% | 0% | 1% | 1% | 12% | 29% | 16% | 0% | 0% |
| | September 2023 | 1% | 23% | 17% | 2% | 0% | 2% | 6% | 2% | 11% | 17% | 13% | 0% | 0% |
| 49 Van Ness/Mission | August 2023 | 2% | 29% | 7% | 1% | 0% | 0% | 0% | 1% | 11% | 11% | 22% | 2% | 0% |
| | September 2023 | 4% | 26% | 6% | 0% | 0% | 1% | 0% | 1% | 10% | 13% | 19% | 8% | 1% |

January 20 Service Changes

Increasing frequency:

- At school times: 24 Divisadero, 29 Sunset, 38R Geary Rapid, 44 O'Shaughnessy, 48 Quintara-24th Street, 49 Van Ness/Mission
- On weekends: 28 19th Avenue

Decreasing frequency:

- 5 Fulton and Rapid, 9 San Bruno, 33 Ashbury/18th Street

Adding stops on the 15 Bayview Hunters Point Express:

- 4th & Berry/Caltrain (OB), 3rd & Brannan Ballpark (IB)
- Hudson & Cashmere (IB & OB)



Equity Strategy Background



Rooted in Muni Service Equity Policy

Builds on Title VI requirements

Neighborhood based approach with disability access addressed city-wide

Policy developed in collaboration with transportation equity and affordable housing advocates

Ensures that investment in Muni system benefits people who rely on transit and need it most

Updated every two years and timed to inform the SFMTA's biennial budget

Next Steps

- Develop FY25/26 Muni Equity Strategy recommendations and convene working group
- Identify service needs through the Bi-annual Service Evaluation process and prioritize resources through the Equity Strategy Principles
- Continue to invest in reliability and travel time improvements throughout the network
- Continue to make cost-neutral service changes



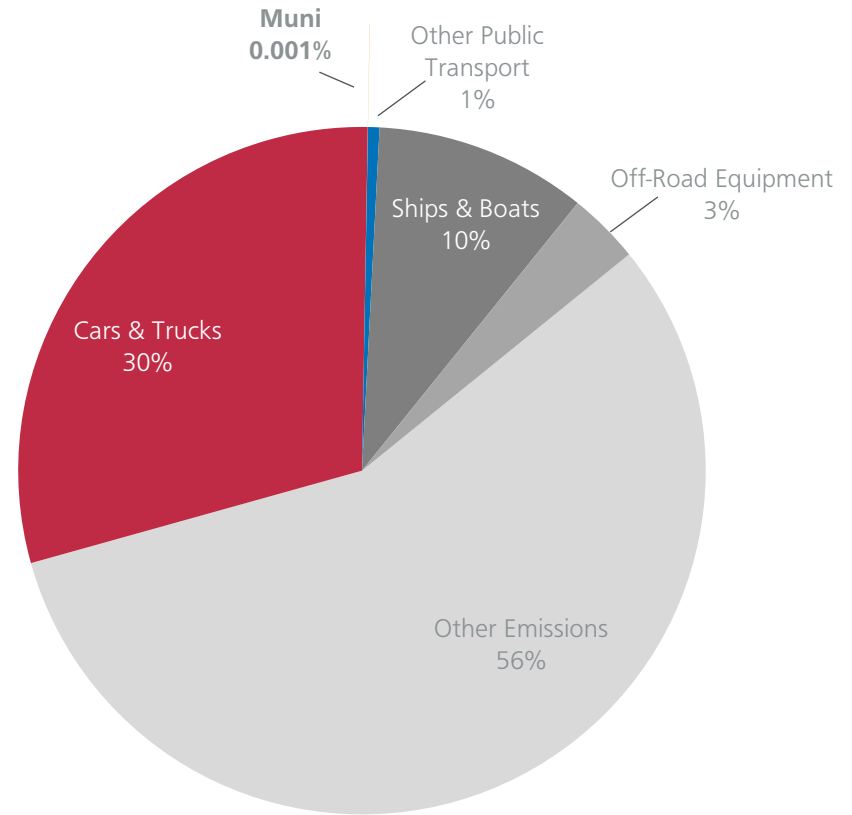


Transition to a Zero-Emission Fleet

Climate Action

Muni accounts for **< 0.001%** of all greenhouse gas emissions in San Francisco

Private cars and trucks account for about **30%**



Greenhouse Gas Emissions
San Francisco, 2020

The best way to reduce vehicle emissions is to make **transit more reliable.**

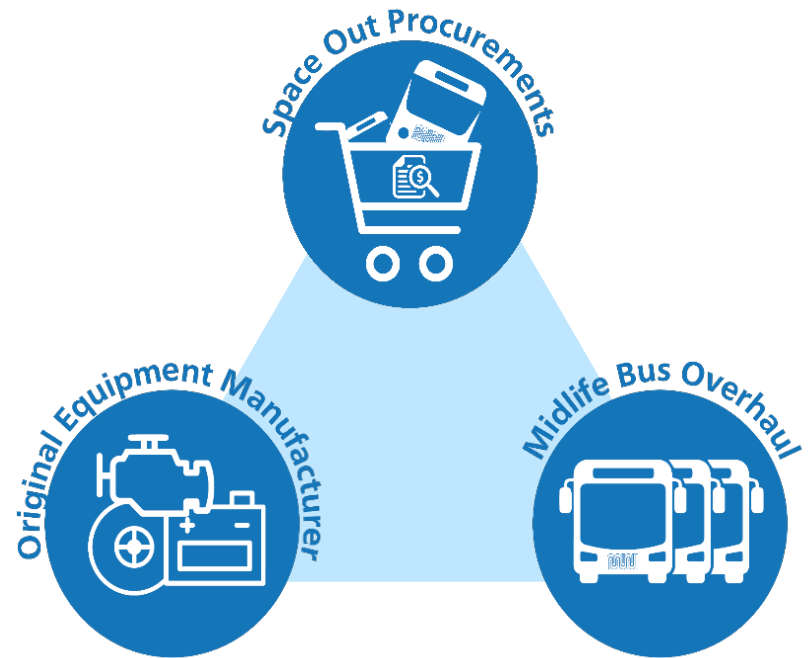
Walking, rolling and using transit need to be more convenient and attractive than driving.

Right now, more reliable transit requires **more hybrid buses.**



Fleet Management Transformation

- Maintain consistent fleet average age
- Performance-based procurements
- Uphold robust maintenance standards and midlife investments
- Align with city's sustainability goals



Progress Towards Zero Emissions

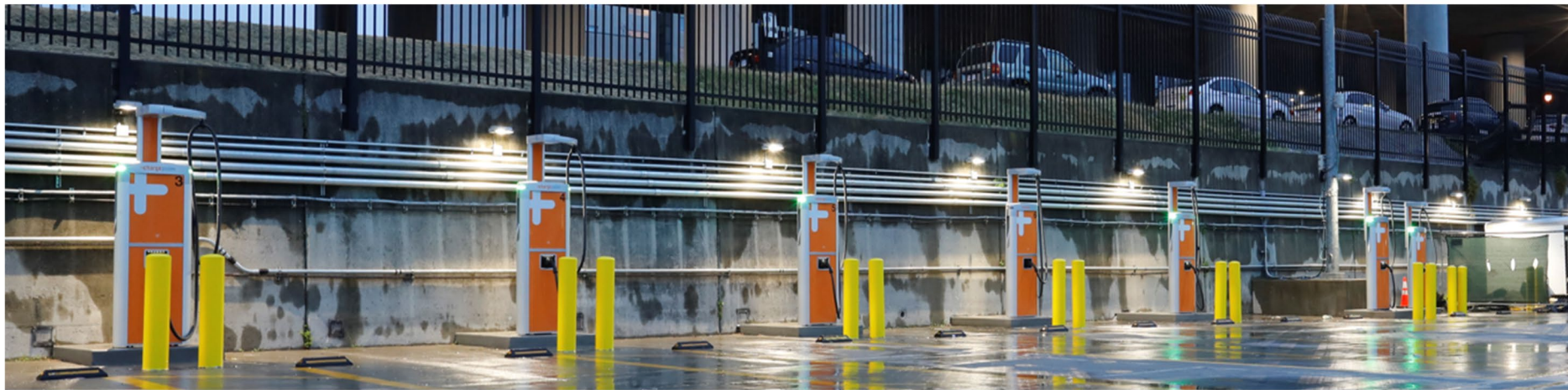
- 2007: SFMTA early adopter of hybrid buses – transition technology for battery-electric vehicles (BEB)
- 2016: Engine auto stop-start feature introduced to 54 buses, reducing idling times and emissions
- 2018: Green Zones introduced to 68 buses– hybrid buses run entirely on batteries through historically impacted communities

Muni runs the greenest fleet of any major city in North America

Progress: Battery Electric Bus Pilot



Progress: Woods Charging Station



Progress: Potrero

Creating a New Trolley Hub



Lessons & Challenges

- COVID-19 delayed progress and highlighted the importance of fleet resilience and flexibility
- 2021 Climate Action Plan puts fleet electrification in the context of broader climate actions
- Failure of 2022 GO Bond significantly reduced our ability to fund facility improvements and federal grant record has been mixed
- PG&E timelines are longer than expected

Outcome: Facility upgrades not keeping up with vehicle replacement needs

New Zero Emission Vehicle Policy

- Aligns with the California Air Resources Board's Innovative Clean Transit (ICT) regulation, which is currently 2040 for 100% zero emissions fleet.
- Allows the SFMTA to continue to procure battery-electric, hybrid and trolley buses as laid out in the SFMTA's CARB Rollout Plan.
- Integrates fleet electrification initiatives with broader climate change initiatives focused on mode-shift.

Electrification Program

Woods Yard Pilot
Phase II
(12 more BEB Chargers)

Islais Creek Pilot
Phase I
(6 BEB Chargers)

Kirkland Yard
Electrification

Islais Creek
Electrification

Presidio Yard
Modernization

Paratransit
Electrification

The **Electrification/Retrofit Program** is an element of the Building Progress Program and is currently being updated to reflect updated electrification policy/ lessons learned.

Next Steps

- Continue to test/refine in motion charging trolleys
- Designate Potrero rebuild as trolley hub
(60ft trolleys will be stored during construction)
- Revise Building Progress delivery timeline to reflect project delivery lessons learned and vehicle replacement priorities
- Buy a combo of hybrids and electrics through 2030
 - BEBs would increase at pace of facility upgrades and available funding

Trolleybuses are a critical part of a zero-emission future

In-Motion Charging holds promise for some **trolley** expansion in the future



Proposed Procurement Plan



FY 25/26 - 112 hybrid electric buses need to be replaced

- Recommending procuring both hybrid and battery-electric buses
 - 12 40 ft Battery Electric Buses
 - 6 60 ft Battery Electric Buses
 - 94 40 ft Hybrid Buses

FY 27-29 procurement will also require a combination of hybrid and battery electric buses

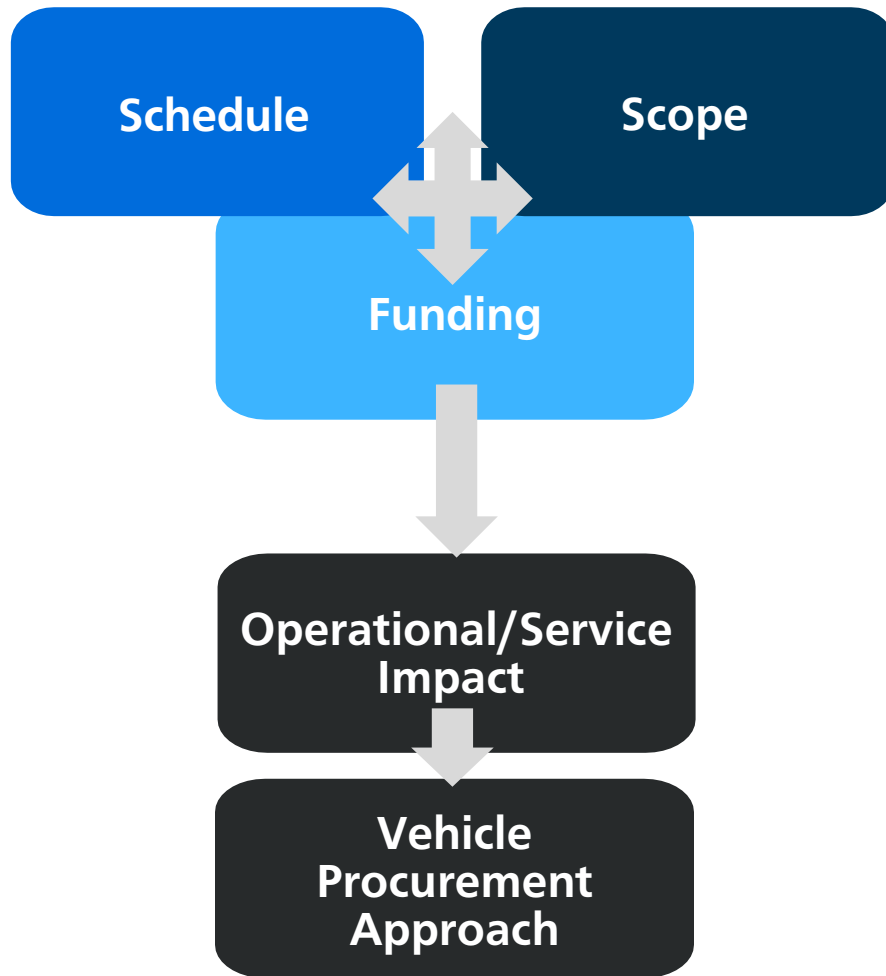
A Just Transition for our Workers

Transition to zero-emissions vehicles won't cut jobs



- Minimal training needed to transition staff
- Expanded workforce for infrastructure maintenance

| Labor Task | Union |
|------------------------------------|--------------|
| BEB Maintenance | Local 1414 |
| Trolley Maintenance | IBEW Local 6 |
| Overhead & Charging Infrastructure | IBEW Local 6 |
| Electronic Component Repair | IBEW Local 6 |



Risks

- The Building Progress is a “pay-go” program, and with planning, design, construction and funding advocacy occurring simultaneously
- Funding and subsequent impact on schedule, delivery and cost (due to escalation) are risks that to date we have managed but remain
- Vehicle procurement approach therefore must be adaptable as we manage these risks

An aerial, high-angle photograph of a large train yard or depot. The image shows numerous parallel tracks, each filled with a long train of passenger cars. The trains are arranged in neat, parallel rows that recede into the distance. The overall color palette is a monochromatic blue, giving the scene a cool, industrial feel. The perspective is from directly above, looking down on the tracks.

Thank you



SFMTA

APPENDIX

