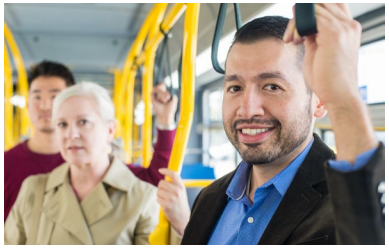
New Flyer Hybrid Bus Procurement

Budget and Finance Committee, Board of Supervisors

October 9th 2024

Context



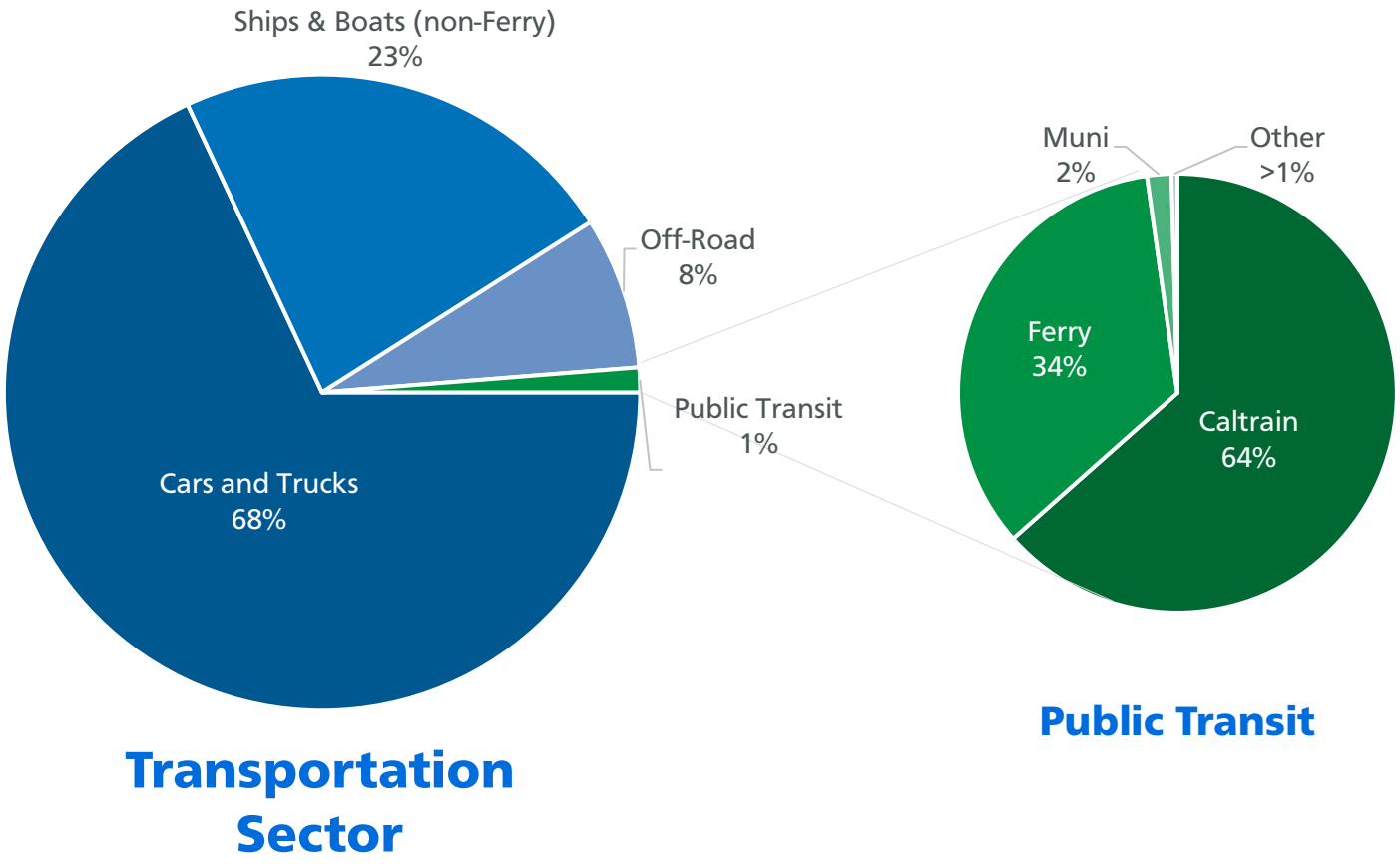
Improvements in Muni reliability are driving our **growing ridership and customer satisfaction**

Reliability improvements are thanks to our **transformed fleet management program**, proactive maintenance, and newer vehicles

This procurement supports those strategies — and our **mode shift and emissions reduction goals**

Most transportation emissions come from cars and trucks; very little from Muni

San Francisco Greenhouse Gas Emissions, 2020



Background

- Our original goal was to replace these vehicles with ZEV
- Project complexities, including funding and PG&E coordination, delayed progress on facility upgrades required for ZEV
- As a result**, we need to purchase hybrid vehicles to maintain a state of good repair** during our transition to 100% zero-emission

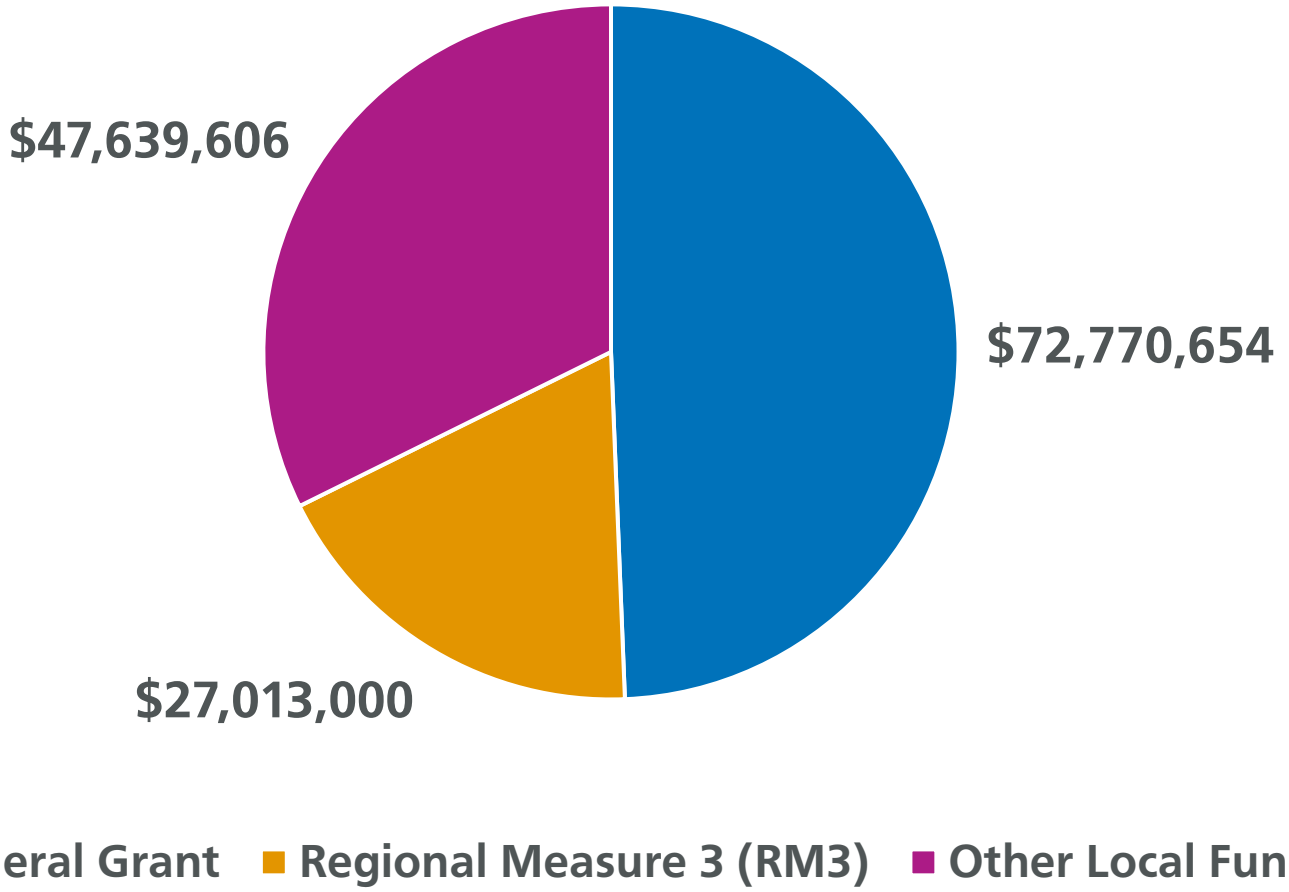
The design process is underway to electrify Kirkland Yard.

Contract No. SFMTA-2024-03-FTA

Contract	**To procure 94 40-ft low floor, hybrid electric coaches** Including spare parts, tools, manuals, training, and telematics licenses from New Flyer of America
Amount	**Not to exceed $117,751,398**
Term	**Not to exceed five years**

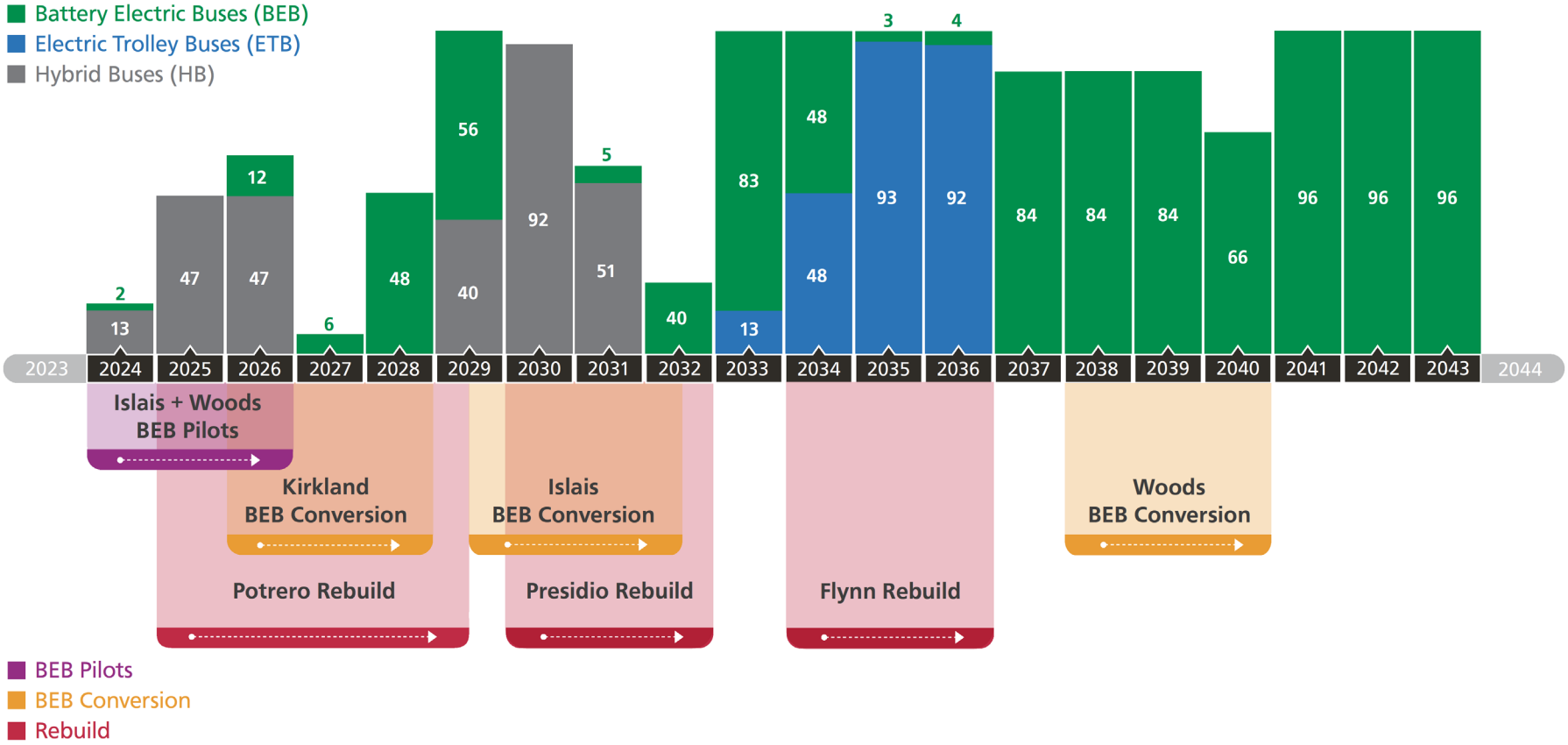
Funding Sources

Total funding for this project: $147,423,260



*General Fund, Operating Fund, Prop L, Transportation Sustainability Fee

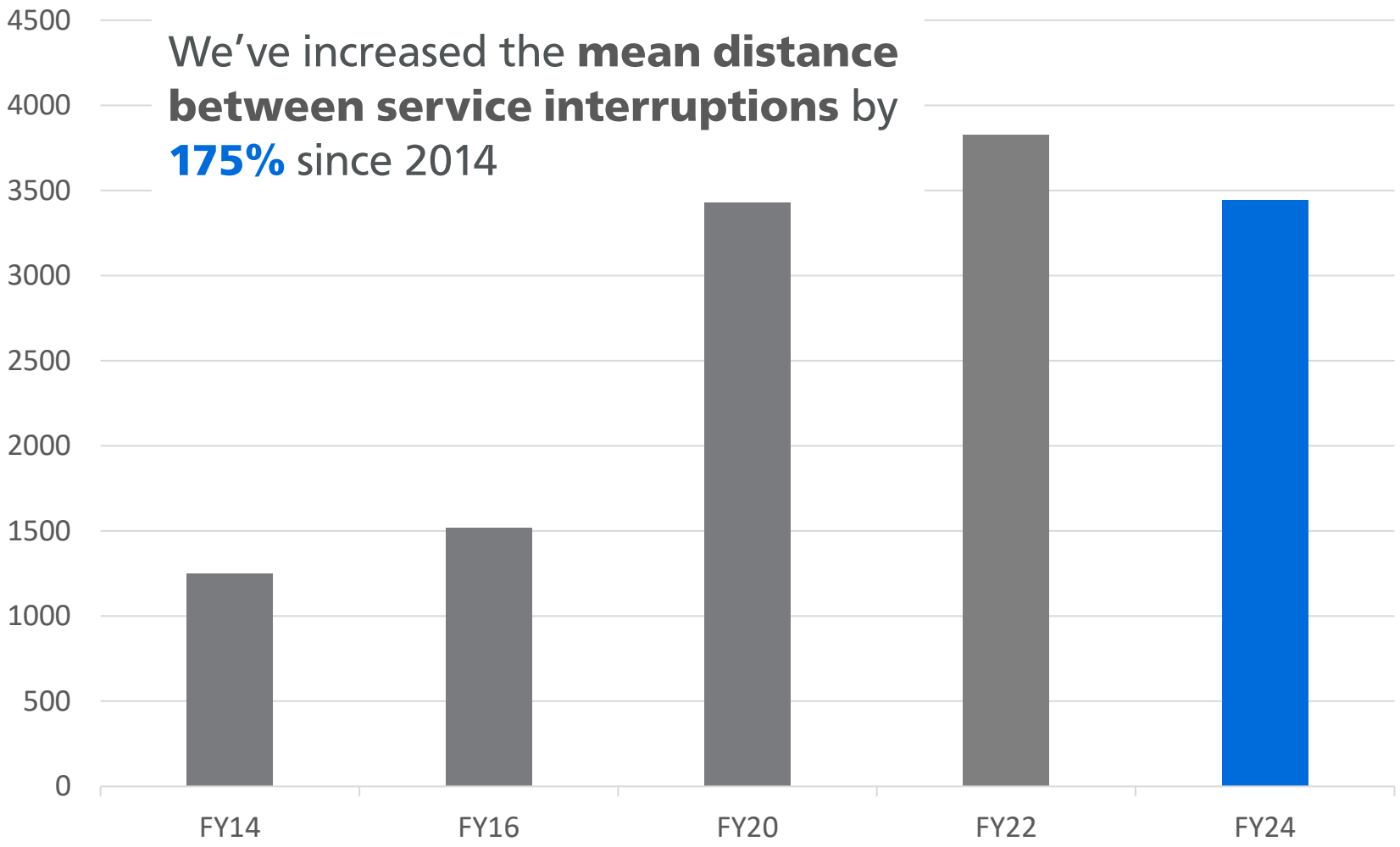
Hybrid and ZEV Procurements



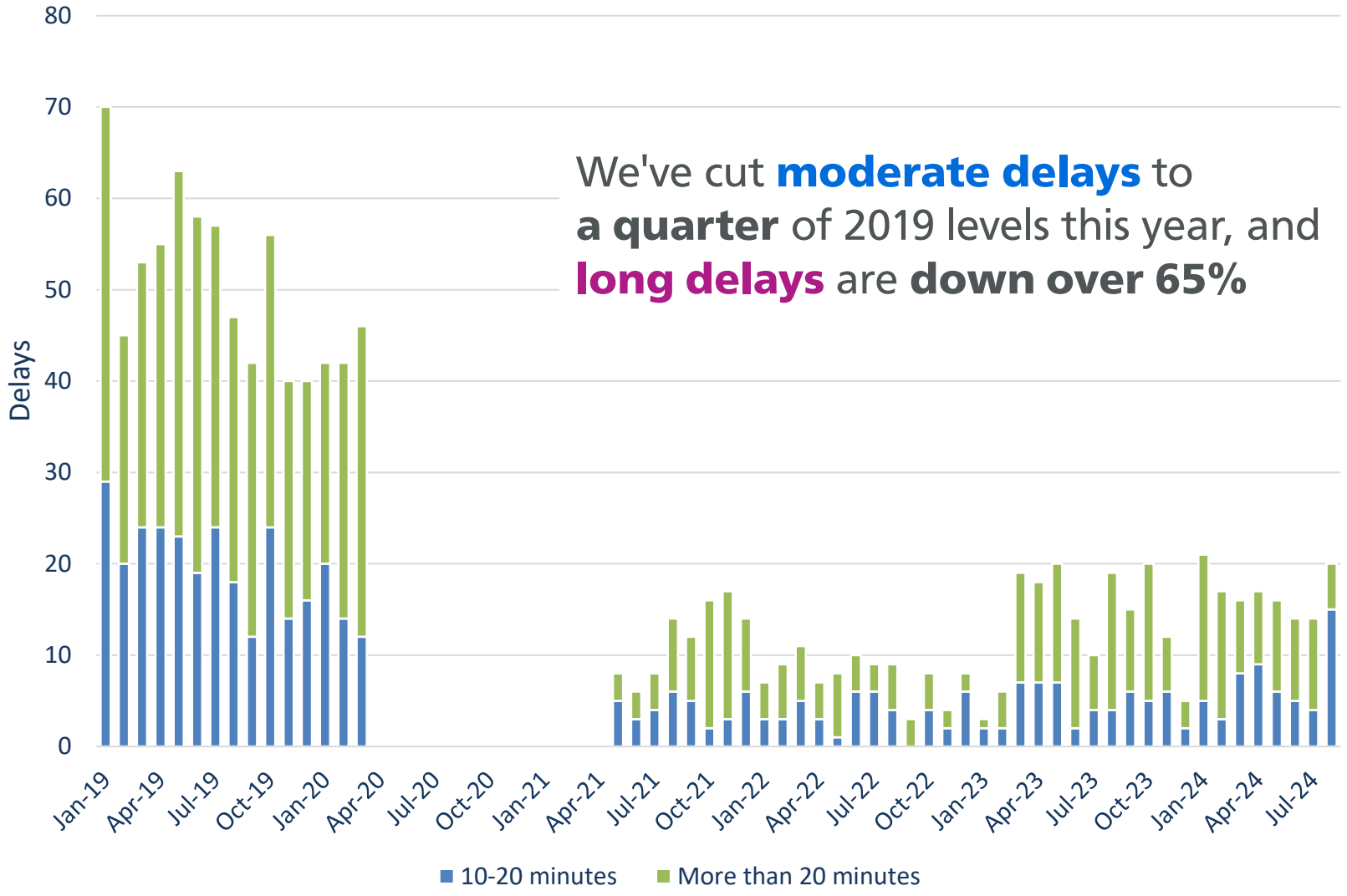
Thank you

Appendix

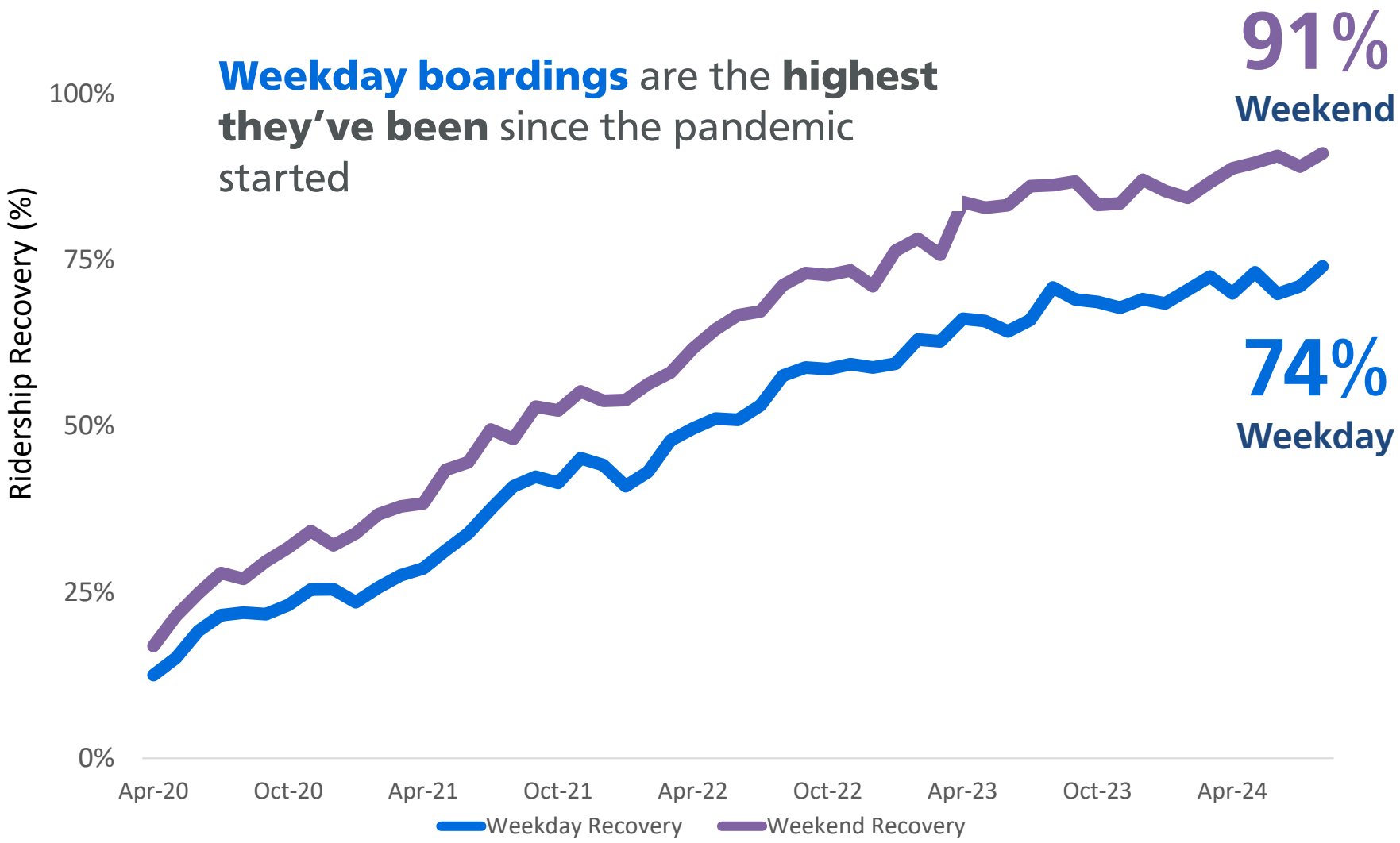
Bus Reliability Improvements



Market Street Subway Delay Events



August Weekday and Weekend Recovery



Note: Excludes cable car and streetcar. Recovery baselined against average daily boardings from the same month in calendar year 2019.

Progress Towards Zero Emissions

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

2007: SFMTA is an early adopter of hybrid buses.

2017/2018: Green Zones introduced to 68 buses.

2018: CARB adopts the Innovative Clean Transit (ICT) regulation calling for full electrification by 2040.

2022: First BEB pilot buses enter revenue service.

2023: Updated SFMTA's Zero Emission Vehicle Policy to align with the ICT regulation, allowing for the procurement of all zero-emission technologies.

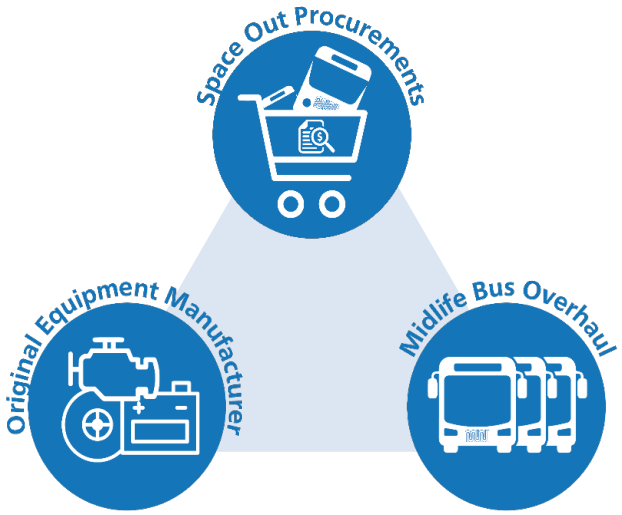
Reliable transit is the best way to reduce vehicle emissions

Low carbon modes need to be the preferred ways to get around

And our fleet management program is critical to Muni reliability

Fleet Management Transformation

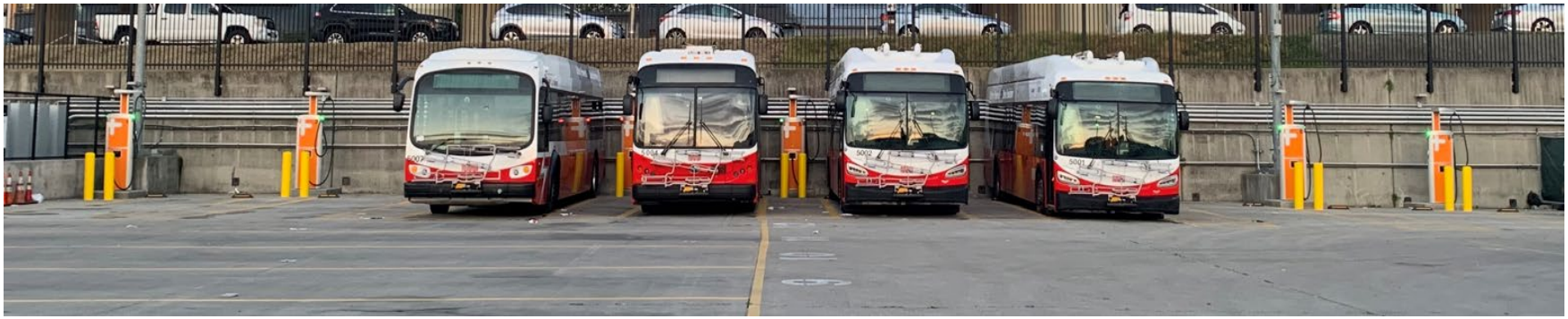
- Maintain consistent fleet average age and state of good repair
- Performance-based procurements
- Uphold robust maintenance standards and midlife investments
- Proactive maintenance: using data to fix things before they break



Battery Electric Bus Pilot Program

- Goal: Evaluate state of battery electric bus technology.
- Launched in 2019, procured three 40-ft battery electric buses each from four suppliers
- Participants: New Flyer, BYD, Proterra, and Nova Bus

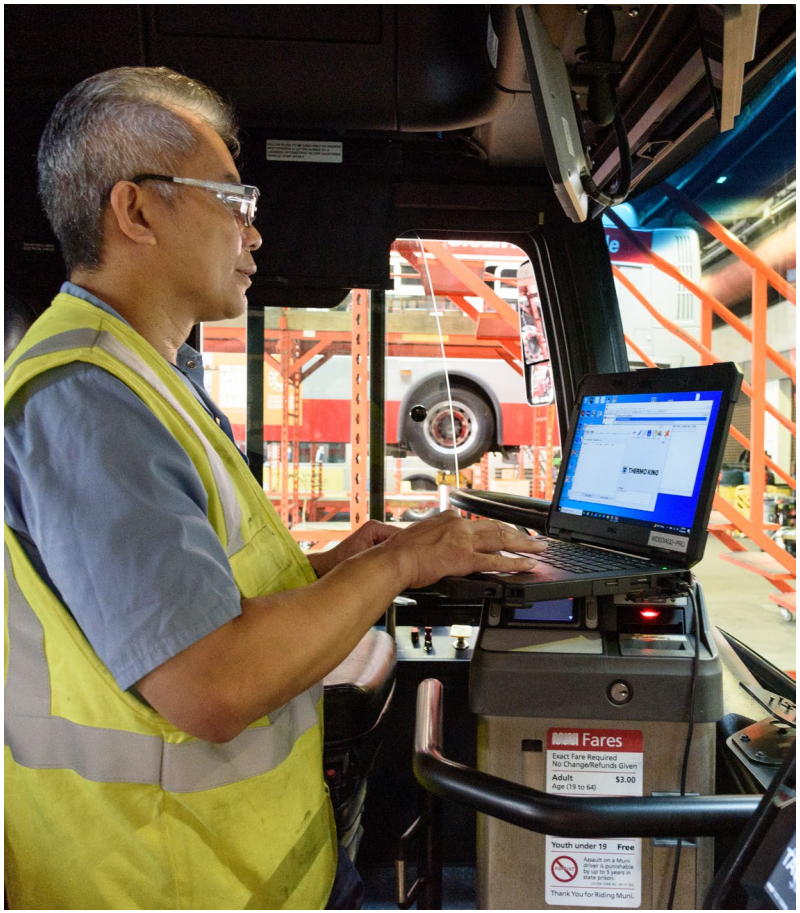
NEW FLYER BYD AUTO PROTERRA NOVABUS



Lessons Learned

Challenges with New Technology

- BEB technology is rapidly evolving
- BEBs can navigate San Francisco's operating environment
- Reliability is not comparable to existing buses but will improve over time



Lessons Learned

Facility Upgrades

- Facility upgrades more complex than vehicle procurements due to cost, regulatory complexity, and coordination with utilities
- Alignment between Building Progress and Fleet Plan critical and captured in updated Facility Framework
- Large costs (over $2B) associated with electrification represent greatest risk to the program

Next Steps – Battery Electric Buses

Facility Grant enables purchasing of 18 new battery electric buses:

- 12 40ft buses
- 6 60ft buses (first test of articulated buses in SF)

Additional battery electric bus expansions will be linked to future facility upgrades

Next Steps - Trolleybuses

Trolleys are an important part of SFMTA's zero-emissions program

In Motion Charging trolleys are promising because they can operate off wire for long distances –pilot underway

The SFMTA working to maintain trolleybuses in North America

- Formed consortium of North American trolley bus operators
- Chair of UITP Trolley Committee

Next Steps - Hybrids

Requesting approval of contract with New Flyer to build 94 hybrid electric buses

Facilities Framework identifies need to purchase mix of low and zero emission buses through 2031

Background

2013 We purchased 40-ft hybrid electric coaches which will soon reach the end of their 12-year useful life

2015 FTA allows transit agencies to use pre-negotiated cooperative purchasing agreements issued by State governments

2021 Washing State awards a State Cooperative Purchasing contract to New Flyer that includes 40-ft hybrid buses

2023 Revised Zero Emission Vehicle Policy allows for continued procurement of hybrid and trolley buses as part of the Zero Emission Rollout Plan

Project Budget

New Flyer Contract	Cost
94 40-ft Low Floor Hybrid Electric Coaches & Telematic License	$111,751,397.62
Spare Parts	$3,000,000.00
Training & Training Kits	$1,000,000.00
Allowance for regulatory mandated changes, passenger enhancements, and other modifications	$1,000,000.00
Special Tools	$1,000,000.00
Contract Total	**$117,751,397.62**

Other Associated Costs	Cost
Tax (8.625%)	$10,156,058.04
Project support (SFMTA staff, other direct cost)	$5,096,868.00
Consultant support and vehicle inspection at plant	$598,849.00
Contingency	$13,820,087.34
Subtotal	**$29,671,862.38**
Total Project Cost	**$147,423,260**

Future Fleet Composition