
SFMTA

# BUILDING PROGRESS
# Electrification Program

Board of Supervisors
Land Use and Transportation Committee
January 31, 2022

## Climate Action at SFMTA

The SFMTA's approach to mitigating climate impacts and reducing transportation sector emissions includes diverse and holistic multimodal strategies

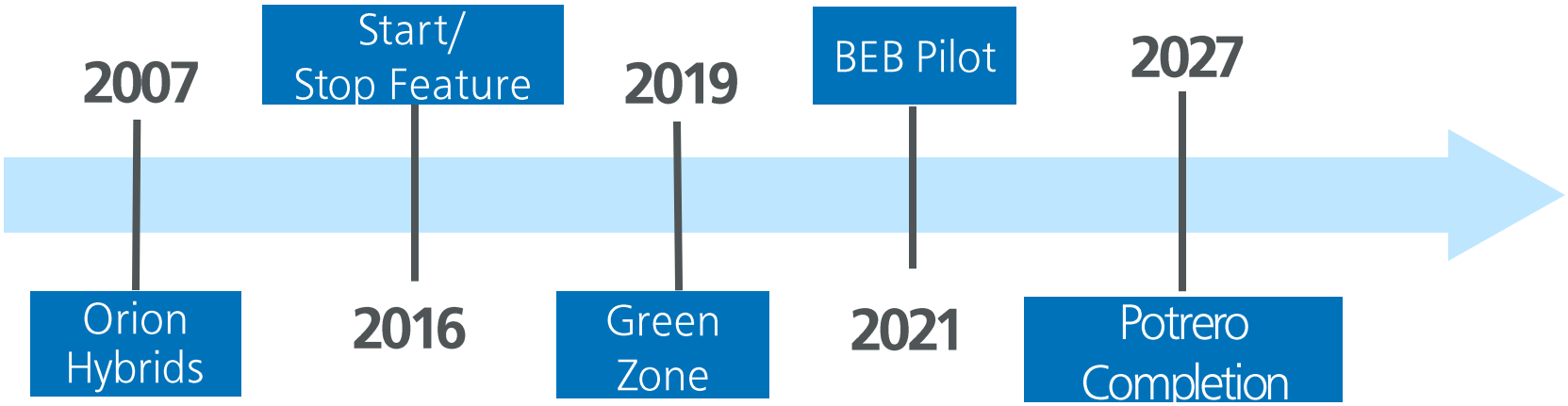
**SFMTA is committed to transforming San Francisco's Transit Fleet to Battery Electric Buses as per our Zero Emission Vehicle Policy**

This transformation will be complex, and timing will be critical to ensure that Muni can provide reliable service to the public.

# Progress Towards Zero-Emission Policy

## Recent Accomplishments

- Launched a 40' Pilot program to test Battery Electric Bus (BEB) – first buses arrived this spring and are undergoing testing
- Initiated construction of scalable charging infrastructure for the BEB pilot program at Woods Division
- Completed the Design Criteria Document and Request for Qualifications Process for the Potrero Yard Modernization Project, the SFMTA's first purpose-build BEB facility



# Bus Procurement Schedule

- **2021:** 30 x 30' Replacement Hybrid Electric Buses
- **2025:** 112 x 40' Replacement Hybrid Electric Buses
  - The SFMTA may utilize 30 bonus credits: 18 from our existing trolley buses and 9-12 for our planned electric bus pilot to meet the ICT regulation.
  - The SFMTA needs next 6-9 months to evaluate the feasibility of meeting the ZEV policy.
- **2027 and onward: 100% zero-emissions buses**



# Challenges

SFMTA

**Ongoing Fiscal Uncertainty**

**Timing**

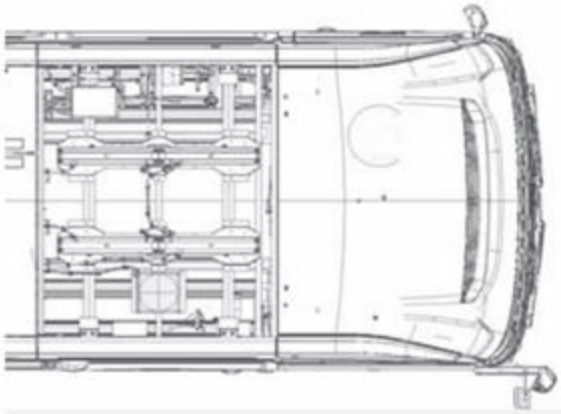
**Complexity**

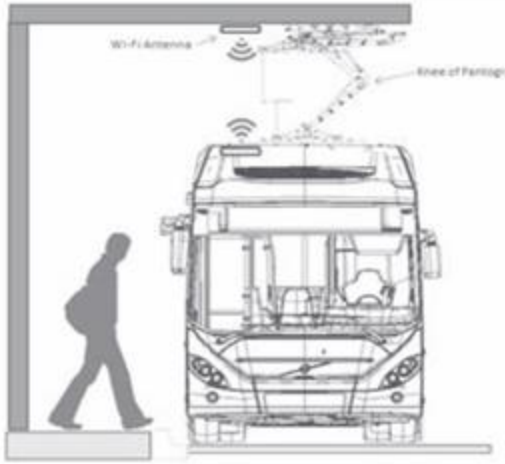
**COVID 19 Impacts and Future Resiliency**

## Timing of Facilities Upgrades

# **Charging infrastructure** must be in place in advance of procuring BEBs

- Facility capital projects have long lead times – 3-5 years for retrofit, and 6-10 years for full rebuild projects
- Potrero will be the first purpose-built BEB facility and is planned to be completed in 2026; planning phase began in 2017
- Transitioning of all facilities is a complex process that relies on delivery efficiency and related project phasing.





# BUILDING PROGRESS: Modernization + Electrification

| Facility | Current Fleet Capacity & Type | Project Timeline | Comments |
|---|---|---|---|
| **Potrero** | 93 – 60ft Trolleys<br>53 – 40ft Trolleys | 2024-2027 | Rebuild to 213 capacity |
| Kirkland | 91 – 40ft Hybrids | 2024-2027 | Likely Retrofit (under analysis) |
| Flynn | 119 – 60ft Hybrids | 2025-2028 | Retrofit |
| Presidio | 132 – 40ft Trolleys | 2028-2031 | Rebuild to 225 capacity |
| Islais Creek | 105 - 60ft Hybrids<br>10 - 30ft Hybrid | 2030-2033 | Retrofit |
| Woods | 221- 40ft Hybrids<br>20 - 30ft Hybrids | 2034-2037 | Likely Rebuild (under analysis) |

Complexity

# BEBs require extensive power above existing power capacity at SFMTA facilities.

- Provision of new electrical service and any associated grid improvements are dependent on PG&E's commitment to deliver the required grid upgrades in a timely manner
- Significant coordination and collaboration with PG&E
- Facility rebuilds requires significant logistical planning to ensure transition minimizes disruption to service

Risks

# Frequent and reliable transportation is dependent on *reliable power*.

**Woods E-Bus Pilot Chargers**

- Wholesale Dist. Tariff Application – 8 months
- System Impact Study – *not 60 days* – 6 months
- Service Agreement - 5 -12 months

**Haight Street Signals (10 intersections)**

- 12-months for service connection AFTER completion

- Need service contracts for traffic signals and other traffic management systems
- Delays in agreements results in public project and service delays increasing short-term project costs
- Worst case is to tie into old electrical infrastructure rather than a new service connection, impacting reliability and maintenance and long-term operating costs

# SFMTA

**The SFMTA is working to transform our transportation system and electrify our transit fleet.**

**A reliable partner, who can provide reliable power, will be critical to avoid risks, costs, project and service delays.**