Introduction of the First Green Zone Program in the World
Overview

- What is the Green Zone Program?
- Diesel to Hybrid to Electric Path
- How does it work?
- Where are the Green Zones?
- Next Steps
- Advantages of the Green Zone Program
What is the Green Zone Program?

• Game changing sustainability improvement and the first program of its kind in the world!
• Testing the transformation of a Hybrid bus → a Part-time Electric Bus.
• Bus will go from running on an engine to running on a battery within the predefined testing area.
Diesel to Hybrid to Electric Path

• In 2005, SFMTA bought its first batch of hybrid-electric vehicles.

• In 2013, SFMTA began a vehicle procurement to replace all diesel coaches to hybrid-electric vehicles.

• In 2018, 68 hybrid-electric vehicles are being delivered with a new feature that allows for the Green Zone program.
How does it work?

- Engine has start/stop (anti-idle) feature
- Battery technology has advanced – New battery's have higher energy capacity.
- Using computer technology, vehicles will be programmed with virtual boundaries. When a bus enters these boundaries, the engine will shut off and operates on battery mode.
- The On-board Bus computers will monitor battery life
Where are the Green Zones?
Where are the Green Zones?

Discussions with Stakeholders
Criteria Developed

Planning

Criteria
• Equity Strategy Neighborhood
• Low Air Quality Area
• Topography
• Distance
• Max. Zero Emission Operation.
• Max. environmental benefit

Green Zones
• 4 Equity Strategy Neighborhoods
• 2 Residential Neighborhood
• 7 Bus Routes
Where are the Green Zones?

Equity Strategy Neighborhoods
- Western Addition, Downtown / Civic Center, Bay View, Mission

Residential Neighborhoods
- Park Merced, Marina

Bus Routes
- 2 – Clement
- 12 – Folsom/Pacific
- 19 – Polk
- 28 – 19th Ave
- 28R – 19th Ave Rapid
- 43 – Masonic
- 47 – Van Ness
Next Steps

• Implementation
  • Soft launching on bus route 19, Polk
  • Green Zones
    ➢ 1st Zone – 1.4 miles at the Hunter Point Terminal
    ➢ 2nd Zone - Polk St between Geary Blvd to Broadway
  • Evaluate performance data
  • Deploy and expand Green Zone onto other identified bus routes

• Internal Conversation
  • Operations Division (explain operational procedures to minimize misunderstandings)
  • Maintenance Division (enhance maintenance procedures)

• Community Outreach
  • Communicate Green Zone information to the public
  • Convey benefits of Green Zone technology
Route Study (Route 47)

Route 47 - Van Ness

Green Zone
Advantages

• Replace 68 aged buses with Green Zone hybrid-electric buses
• Taking advantage of higher energy capacity battery to run up to 1/3 of the route with engine off
• Noise reduction
• Comfortable ride experience
• Milestone accomplishment for SFMTA – path of the SFMTA Zero Emission Policy
• SFMTA is the pioneer for the Green Zone Operation.